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ABSTRACT

This report surveys Minnesota laws relating to the use of health manpower. It presents a summary of Minnesota licensure laws as they apply to categories of health personnel and paramedical personnel currently unrecognized by the law. An analysis is also made of malpractice decisional law to examine whether such laws prohibit or inhibit optimal utilization of health personnel. Licensure laws have this effect by defining the limits of functions performed by licensed personnel and by proscribing the use of persons who are not licensed in a particular category. Medical malpractice law limits optimal utilization of personnel by exposing health care practitioners to possible liability if they deviate from laws, customs, and accepted standards of care. Alternative proposals for changes in the law are set forth that would permit more latitude in the use of health care personnel, if such a goal is deemed necessary. A 68-item bibliography is included. (Author/MS)

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A Study of Minnesota Law Related to Selected Health Manpower Categories

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THE LAW AND HEALTH PERSONNEL:

A Study of Minnesota Law

Related to Selected Categories of Health Manpower

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S U M M A R Y

This report surveys the Minnesota laws relating to the utilization of health manpower. It presents in summary form an inventory of Minnesota licensure laws as they apply to categories of health personnel and to paramedical personnel currently unrecognized by the law.

An analysis is made not only of licensure laws but malpractice decisional law also, to examine whether such laws prohibit or inhibit optimal utlization of health personnel. Licensure laws can be said to have this effect in that they define the limits of functions performed by licensed personnel and in that they proscribe the use of persons who are not licensed in a particular category. Medical malpractice law is discussed to the extent that it limits optimal utilization of personnel through exposing health care practictioners to possible liability if they deviate from laws, customs, and accepted standards of care.

Finally, some alternative proposals for changes in the law are set forth that would permit more latitude in the use of health care personnel, if such a goal is deemed necessary.

P R E F A C E

Comprehensive Health Planning was established under federal legislation through enactment of Public Law 89-749, the "Comprehensive Health Planning and Public Health Service Amendments of 1966" (P.L. 89-749). Three major areas for planning emphasis are in the preamble of this legislation.

> ". . . the Congress finds that comprehensive planning for health services, health manpower, and health facilities is essential at every level of government. . . ."

Numerous reports of national commissions and committees concerned with the organization, financing, and delivery of health care were published during the 1960's. While these reports vary in emphasis, recommendations are directed toward the resolution of problems and deficiencies in the health service system. One of the major problem categories is the limited supply and maldistribution of health manpower.

In Minnesota there are a number of efforts under way to increase the available supply of health manpower. In the process, problems have emerged which relate to the legality of developing new health professions, or new assignments for existing health personnel. The laws of licensure, medical malpractice, and agency rules and regulations that have the force of law affect such development. Only with adequate information and understanding of the legal base can planning for health manpower be effective. In order that information on the laws relevant to health manpower be made available to interested agencies, educators, and the Minnesota State Legislature, the Comprehensive Health Planning Program contracted with the Institute

for Interdisciplinary Studies of the American Rehabilitation Foundation for the preparation of this report.

SECTION 1: INTRODUCTION

This study inventories and analyzes the body of law relevant to health manpower utilization in Minnesota, in order to provide the Minnesota State Comprehensive Health Planning Agency and other interested organizations with an informational base for planning. The purpose of the study is to provide information and analysis which will ultimately lead to optimum use of health personnel.

Currently, health manpower research is directed toward solving two principal problems: shortages of health care personnel and maldistribution of available manpower. While there is considerable dispute among researchers about the relative severity of both the supply and distribution of manpower, there is sufficient evidence to demonstrate that health care facilities lack sufficient personnel to operate fully in some cases, or to operate efficiently in others. Further, demographic data unequivocally illustrate the disparities in health personnel distribution (rural vs. urban, suburbs and exurbs vs. core city pockets, etc.). What is debatable is whether these distinct problems are due wholly to shortages, or whether they are caused in part by less-than-optimal distribution.

The approaches that are being used to research these problems might be loosely classified into five broad areas:

1. Demographic-Statistical
2. Health Economics
3. Psychological

4. Management Theory-Operations Research

5. Legal

The demographic-statistical work has focused on illustrating the distribution of health manpower and developing ratios of certain categories of manpower to population groupings. The studies oriented to health economics include discussions of needs for and supplies of manpower. Psychological studies have concentrated on the health professionals themselves in an attempt to account for career choice, satisfaction, and mobility. Finally, the management analysts and operations researchers have focused their attention on utilization patterns and on the characteristics which mark present manpower distribution.

The above categories are rough and tend to overlap. One area which is easily isolated is the set of laws and regulations which affect health manpower availability and utilization. It is this area, as it operates in Minnesota, which is explored in this report.

SECTION 2: INVENTORY OF SELECTED LAWS AND REGULATIONS

Constraints on the way health personnel are used in Minnesota can be traced to several sources: licensure laws, medical malpractice laws, rules and regulations of licensure boards, and the policies of various accrediting bodies, educational institutions, and professional associations. Before discussing how each of these categories relates to specific health professions (see section 3), the ways in which these laws and policies generally affect manpower utilization will be considered.

STATUTORY LICENSURE LAW

Licensure of health manpower is a function of the state, derived from the power of a state to legislate to protect the health, safety, and welfare of its citizens. State medical societies sponsored the enactment of licensure laws in the late-nineteenth and twentieth centuries. Their success was surprising because laissez-faire philosophy was flourishing and had blunted other attempts to secure occupational licensure. Since extra-governmental means of control, including efforts by medical societies as well as by individuals, had proved ineffective in eliminating incompetence and quackery, statutes requiring licensure of all persons practicing medicine were enacted. These laws originated at a time when there were few health manpower categories, and thus the statutes were phrased initially only to authorize qualifying physicians to perform all health care functions. As new categories of health professionals developed and gained acceptance, their members were granted more circumscribed licenses, enabling them to

perform only those functions for which they were qualified by training and experience; in effect, they carved out authorization from the full latitude of practice allowed the physician.

Licensure laws covering health personnel have typically progressed from permissive -- merely preventing the use of a given title by the unlicensed -- to mandatory -- making criminal any action within the scope of a licensed profession by one not licensed in that profession. Functional spheres are defined by statutes, and functional perimeters are zealously protected against encroachment by licenses. As more functions have come within the practical competence of personnel less extensively trained than the physician, and as health care demands have grown, these laws may have impeded the allocation of different functions to existing allied health personnel and discouraged the development of new types of paramedical personnel.

MEDICAL MALPRACTICE LAW

Malpractice law is decisional law; that is, it is law formulated by the courts and presented in the form of written legal opinions. Medical malpractice relates to that law on the liability of physicians and other health care practitioners for negligent acts resulting in damage to persons under care.

Malpractice law affects manpower utilization in that health care institutions and practitioners tend to adhere to certain identified and "safe" practices and procedures, often scrupulously, in order to avoid exposure to liti-

gation. To the extent these practices and procedures represent traditional and inflexible patterns of care and resist innovation, optimal utilization of health manpower may be inhibited. There is sufficient evidence that the threat of malpractice litigation does reinforce the tried and the accepted and discourages innovation.

But this is not to suggest that it does not also serve the quality of care. As with all barriers to utilization, the question is not, What can be done with these barriers, disregarding quality of care? but rather, Are there changes in the law that can be made to be consistent with the maintenance of quality?

RULES AND REGULATIONS OF LICENSURE BOARDS

A common characteristic of many licensure statutes is the delegation of rule-making authority to various boards and agencies created by the same statutes. For example, Minn. Stats. Chapter 147, "Physicians and Surgeons, Osteopaths," contains the following provision:

> ". . . [T] he board shall have the authority to prescribe such rules and regulations relative to the examination of applicants for license to practice medicine, surgery, and obstetrics as may be found necessary. . . ."

Similar authority is delegated in Chapter 146 to the Minnesota Board of Examiners in the Basic Sciences, the Minnesota Board of Nursing, and so on.

Generally, the only limitation imposed upon the boards is that any such rules and regulations so promulgated must be consistent with the statute.

The latitude is broad. Nevertheless, most boards have not adopted extensive sets of rules.

The rules that have been prescribed usually deal with conditions qualifying applicants for examination for licensure. It is in these rules that the intricate fabric of accreditation and associational membership requisites is woven. In other words, a set of rules will usually limit eligibility for examination to those applicants who have attended an accredited institution, and/or who have been trained in an accredited program. The interplay of these informal, but very real, types of law may result in the erection of some very important barriers to utilization. The types of law referred to here are accreditation standards for institutions of training, entrance standards for educational institutions, and the rules and bylaws of health care professional organizations. Since these types are nearly inextricable, they will be discussed together.

POLICIES OF ACCREDITING BODIES, EDUCATIONAL INSTITUTIONS, AND PROFESSIONAL ASSOCIATIONS

The Flexner report of 1910 initiated a restructuring of medical educational and licensing systems in the United States.[1] The American Medical Association, organized in 1847, and other professional health organizations had previously instituted a system of certifying personnel at least to some extent by accrediting, first, medical schools and, later, educational institutions for allied health fields. This practice has continued to the present and has in many cases been strengthened by legal sanctions in the form of state licensing boards which delegate their accrediting

authority to voluntary health organizations such as the AMA. In most cases today a form of "peer certification" is used in the auxiliary health fields as well as in medicine. Although the state board will still enforce licensing statutes to the extent of determining the eligibility of applicants for licensure, issuing licenses, and suspending licenses, the authority for the approval and supervision of schools is often delegated to various national health associations. Thus, these private organizations have the power to limit entry into certain fields by virtue of their power to limit the number of accredited institutions, promulgate rules concerning the enrollment in any school, and determine what courses of study are to be offered to preserve accreditation. In professions which need comply only with permissive licensing statutes or which possibly have no licensing restrictions, these limitations may be ignored. For physicians, however, and other professionals compulsory licensing statutes make adherence to these informal laws mandatory. A few examples of accrediting procedures and organizations will elucidate the issue.

In the state of Minnesota at this time there is no licensing board for medical technologists. The only type of "certification" available issues from the Board of Registry of Medical Technology which is a part of the American Society of Clinical Pathologists (ASCP). In order to be eligible for the certification examination offered by this organization, one must have graduated from a school of medical technology which has been approved by the Board of Schools of Medical Technology, a branch of ASCP, which serves in an advisory capacity to the Council on Medical Education of the American Medical Association. The council, in conjunction with ASCP

and the American Society of Medical Technologists, has assumed the duty of formulating regulations for these schools with respect to administration, organization, faculty, prerequisites for admission, curriculum, and ethics. This training generally requires three years of college plus one year of clinical work for the bachelor of science degree in medical technology. A national study has indicated that most medical technologists are not registered and usually did not attend an approved school.[2]

In the metropolitan area of Minneapolis and St. Paul most hospitals will not employ an unregistered medical technologist unless the technologist is qualified to take the ASCP exam and intends to do so within a specified period of time.[3] There are many laboratories in Minnesota which are not this selective, but the AMA standards appear to limit the job opportunities for some, while establishing high academic standards.

The radiologic technologists in Minnesota enjoy a very similar accrediting arrangement. The Joint Review Committee on Radiologic Technology in this case works in conjunction with the AMA. The American Registry of Radiology gives the registration examination and encourages those who have passed this exam to use the descriptive initials RT (ARRT) to indicate registration.

In Minnesota there are two schools of occupational therapy -- at the University of Minnesota and the College of St. Catherine. Since there is no state board of examiners for occupational therapists in Minnesota, the professionals in this field must provide their own regulations and accordingly would have difficulty legally restricting unqualified personnel from practicing. The length of training required in this field is practically

identical to that required for medical technologists. Again it is the Council of Medical Education of the AMA which accredits the schools, although in this case it collaborates with the American Occupational Therapy Association (AOTA). The certification examination is given by this latter organization and upon successful completion, the individual is entitled to use the initials OTR. There is also an AMA-approved program for occupational therapy assistant (COTA). The result is that it is virtually impossible to obtain a position as an occupational therapist at any hospital in the Minneapolis-St. Paul area unless one is certified by the AOTA. However, an uncertified occupational therapist may be hired in a position similar to that of an assistant or an aide.

All of the health manpower categories discussed thus far have been those which are not presently licensed in Minnesota. However, with the exception of the licensing exam, the same general educational accrediting arrangements prevail with the licensed occupations. The physical therapists in Minnesota must satisfactorily pass an exam, administered by a state board, in order for a therapist to be registered. As in the case of unlicensed occupations, the individual must have graduated from an approved school before he or she is eligible to take the exam. The only accredited training programs for physical therapy in Minnesota are offered by the University of Minnesota and the Mayo Clinic. Both institutions must maintain standards for accreditation set by the Council on Medical Education of the AMA and the American Physical Therapy Association which acts in an advisory capacity to the council. Once again, many metropolitan hospitals employ only registered physical therapists.

State licensing boards do not always delegate their authority for approving educational institutions to other organizations. The Minnesota Board of Nursing approves each of the twenty-five schools in Minnesota which have programs for professional or registered nurses and the twenty-six schools for practical nurses. The National League of Nursing (NLN) has approved eighteen schools for registered nurses; however, their standards are somewhat higher and one is eligible to take the nursing exam as long as the school attended has been approved by the Minnesota board.[4] The NLN at this time does not accredit schools of practical nursing.

There have been attempts in some fields to eliminate state examinations and require only national examinations to qualify an individual to practice in any state. There is a National Board of Dental Examiners whose test is sufficient with a state clinical exam in forty-six states,[5] and a National Board of Medical Examiners for physicians, which has gained acceptance in all but three states.[6] A more standardized state exam is now being formulated for pharmacists but is not yet in use. This, however, will not be a national examination in its present form.[7]

In summary, then, it can be seen that a prospective candidate for certain health careers in Minnesota faces the necessity of compliance with an array of rules, standards, examinations, and so on.

To place the licensure laws of Minnesota in nationwide perspective, the following chart indicates the extent of licensure in the United States for various types of health care practitioners:

Licensed in all states: Dental hygienists, dentists, professional engineers (including those in health field), optometrists, pharmacists, doctors of medicine, doctors of osteopathy, podiatrists, veterinarians, professional nurses, practical nurses.

Licensed in all states (as of Jan. 1, 1970): Nursing home administrators.[8]

Licensed in all but 2 states: Chiropractors, physical therapists. (Chiropractors are licensed in Minnesota.)

Licensed in 17 - 36 states: Midwives, opticians, psychologists, sanitarians. (Midwives and psychologists are licensed in Minnesota.)

Licensed in fewer than 17 states: Clinical laboratory directors, clinical laboratory personnel, naturapaths, social workers. (None of these is licensed in Minnesota.)

Licensed in 1 state: Health department administrators, hospital administrators, x-ray technicians. (Of these only hospital administrators are licensed in Minnesota.)

Thus, a single state may require licenses for anywhere from twelve to twenty-one occupations. California leads with twenty-one, followed by Florida, Hawaii, and New Jersey with twenty.[9]

Occupational therapists and dental assistants are not licensed in any state. Neither are such new categories such as the physician's assistants being

trained at the Duke University School of Medicine or the health aides widely promoted by the Office of Economic Opportunity.

In most states there is a separate board for the licensing and regulation of each health occupation. Eight states have a single central board for this purpose. In some, the boards are located in the department of health; in others, in the department of education or the department of state, commerce, or law and public safety. (Appendix B contains a more complete survey of the educational and certification requirements for some health professions in Minnesota.)

SECTION 3: ANALYSIS OF LEGAL BARRIERS TO HEALTH MANPOWER UTILIZATION

LICENSURE LAW

For each of the various categories of health care personnel set forth in this chapter there is a licensing statute that imposes requirements for and restrictions on practice. Some of these are vital for the protection of the consumer, but other strictures need to be examined to see if they perhaps interfere with what may be the optimum use of these health care professionals.

The licensure statutes discussed in this section can be said to be either "permissive" or "mandatory." When a statute is said to be "permissive" it means that a person without a license may legally perform the acts regulated by the statute, but he may not use the title that is used by licensed persons who perform these acts, nor may he in any other way represent himself to have a license. A "mandatory" statute, on the other hand, requires that <u>just</u> to perform the acts regulated by the statute, the person must have a license or he will be subject to conviction. When a licensing law is violated, the violator can be convicted of a gross misdemeanor which, under Minnesota law, can result in imprisonment for a period up to one year and/or a fine of up to $1000.

Many of the requirements set forth in the licensing statutes impose requirements -- such as payment of an annual registration fee, or establishment of the means for appealing an order of the licensing board -- that do not significantly affect the utilization of health care personnel. Other

requirements, though, are directly concerned with the activity and use of health care personnel, and it is these that will be examined in this section. For each statute the restrictions on activity can be said to fall into five general areas:

1. Restrictions on gaining initial authorization to practice a particular type of health care service.
2. Restrictions on where the particular health care service can be performed.
3. Restrictions on the continued practice of the particular type of health care.
4. Restrictions on the delegation of the functions of the particular type of health care service to some other person.
5. Restrictions on the type of work that can be performed by persons fully licensed in the particular health care field.

Physicians and Surgeons

A. Restrictions on Gaining Initial Authorization to Practice

Practicing medicine without a license in Minnesota is a gross misdemeanor. The Board of Medical Examiners is authorized by statute to adopt rules and regulations for licensing applicants.[10]

In order to obtain a license,[11] an applicant must pay a $75.00 fee; furnish evidence that he is of good moral character; present to the board a certificate of registration in the basic sciences;[12] pass an examination given by the Minnesota board or the National Board of Medical Examiners in various branches of medicine;[13] furnish evidence of receipt of an MD degree from an approved school; furnish evidence of completion of one year of graduate training at an approved institution; and obtain the approval of at least six of the eight members of the Board of Medical Examiners.

The Board of Medical Examiners is appointed by the governor from a list of names submitted by the Minnesota State Medical Association.[14] Since the board is charged with the responsibility for evaluating the examinations of applicants and for determining to whom licenses shall be issued, it can have an important effect on the nature and qualifications of persons allowed to practice medicine in Minnesota. In turn its standards are influenced by the state medical association because it is the only body specifically authorized by statute to recommend persons for membership on the board with the exception of those persons recommended by the

Minnesota State Osteopathic Association for the one position required to be held by an osteopath.

The number of applicants available, assuming they want to practice in Minnesota, are determined in large part by the number of persons admitted to medical schools. Thus, the admissions standards of medical schools themselves have an impact on the availability of physicians.

Persons possessing a license to practice medicine in some other state or country, but not in Minnesota, must obtain a license issued by the Minnesota State Board of Medical Examiners in order to practice medicine in Minnesota, notwithstanding possession of a license from another state or authority.

About two years ago the Federal Licensing Examination Board formulated an examination, called FLEX (Federal Licensing Examination), in an attempt to provide a test that would be used throughout the country. Presently it is used by twenty-three states as the licensing exam, and it is accepted by most states in lieu of the national exam even if the state itself -- as is so in Minnesota -- does not yet use the exam. About 10 to 15 percent of the doctors presently in the United States did not take the national board exam because they were in schools in foreign countries when the sophomore portion of the exam was given. Rather than take the state exam for a particular state, they can now take FLEX. It seems likely that FLEX will replace the regular exam in most states, since there are many states, including Minnesota, that are considering it. However, there are a number

of states where the state law presently hinders adoption of the new exam. For instance, some state laws require that the licensing exam be given three times a year and FLEX is offered only twice.

An applicant with a license from another state need not take the Minnesota examination if he furnishes proof of satisfactory examination performance in another state, or in an examination given by the National Board of Medical Examiners, and if he possesses a degree from an approved medical school. In addition, the applicant must comply with all the other requirements imposed on applicants for their initial license in Minnesota, including the basic sciences requirement.[15]

Every osteopath, medical doctor, or chiropractor in Minnesota must have a certificate from the Basic Science Examiners Board before he can obtain a license to practice in Minnesota. About half of the states have basic science exams similar to the one in Minnesota and all of the other states have a section of their licensing exam which is equivalent to the Minnesota test. A physician who has taken any of these state licensing exams or state basic science exams, or who has taken the exam given by the National Board of Medical Examiners need not take the Minnesota basic science exam for licensure in Minnesota. Therefore, only a doctor who had not taken any of these current exams would have to take the basic sciences exam upon moving to Minnesota. In effect, most physicians in practice for less than twenty years would not be affected by the basic science certificate requirement.[16]

The Board of Medical Examiners is permitted to impose on doctors from other

states requirements or obligations not otherwise required by Minnesota if the states from which they come impose requirements or obligations[17] on doctors licensed by the state of Minnesota or holding diplomas from medical schools in this state.[18]

Physicians who hold commissions in the United States Army or Navy, while performing their service-connected duties in Minnesota, need not comply with these provisions. Similarly, physicians from other states in actual consultation in Minnesota are exempt.[19]

Doctors from foreign countries who wish to pursue graduate training in medicine in Minnesota may obtain a temporary certificate without examination. They must have a degree from a medical school approved by the licensing authority of the country in which the school is located, and they must have a license from the country of their residence or have taken an examination there "substantially equivalent" to the examinations given by the Minnesota board.[20] The doctor must offer evidence that he has been accepted for training by a board-approved Minnesota institution, and if he plans to undertake residency training here, he must show that he has completed twelve months of training as an intern at a hospital approved by the board. Also he must obtain a certificate of registration in the basic sciences.[21]

The holder of the certificate must confine his training to the institution specified in the application, and he may perform those services incident to his residency training while operating under the direction of a licensed physician.[22] The certificate is issued for a period of one year and may

be renewed annually for not more than four additional years.[23] The doctor from abroad who wishes to obtain a Minnesota license must:[24]

1. furnish evidence that he has a diploma from a medical school where the training is recognized by the board as being commensurate with that required by approved medical schools in the United States;
2. furnish evidence that his license to practice in a foreign country, if he has one, is valid and duly issued;
3. furnish evidence that he intends to become a citizen of the United States, if he is not already one;
4. furnish evidence that he has satisfactorily completed two years of training at a Minnesota institution approved by the board; a training, in the opinion of the board, equivalent there to that required of non-foreign applicants;
5. take and pass the regular examination given by the board to other non-licensed applicants; and
6. furnish evidence that he has obtained a certificate of registration in the basic sciences.

B. Restrictions on Location of Practice

Normally physicians are free to change the location of their practice as they please. However, there may be some deterrents to doing so. For example, the statute specifically states that no person has the right to be admitted to the medical staff of a hospital[25] and thus, a doctor might

not be able to gain admission to the medical staff of the hospital in the area to which he wishes to move.

A doctor can be made subject to restrictive covenants in an employment contract or partnership agreement.[26] Such covenants would prevent a doctor from practicing in a certain area for a specified length of time.

Discussion

There is no provision in current law which encourages doctors to change their practice to another location, for example, to those areas with a shortage of physicians. However, the Minnesota legislature did provide in 1969 for loans of up to $2,500 per year for four years at 8 percent interest to be granted by the board to needy medical students, one year's interest on the loans to be forgiven for each year the recipient practices in a Minnesota municipality of less than 3,000 persons and 25 percent of the principal to be forgiven if the recipient of the loan practices for five years in such a community.[27] While the purpose of this provision is probably sound, it could perhaps be made more effective in any one of the following ways:

1. Outright scholarships could be granted with the same conditions as imposed on the loans. This type of aid is presently available to nursing trainees.

2. The conditions could be made less strict to provide more of an incentive. College students who borrow money through the National Defense Education Act are forgiven 10 percent of the principal for each year that they teach after graduation, up to five years.
3. Since rural areas are not the only geographic areas in need of more doctors, sections in many larger cities could also be designated as areas which would, if a young physician practiced in them for a period of time, qualify him for the benefits of this program.

C. Restrictions on Retention of License

Once a doctor obtains a license to practice medicine, it is usually permanent.[28] In only a few instances has the Board of Medical Examiners revoked or otherwise limited a physician's license.

"Unprofessional conduct" for which a license may be revoked, as defined in the statute, includes various types of quackery, drug addiction, alcoholism, conviction of a felony, an offense involving moral turpitude, violation of a state or federal narcotics law, obtaining a license or passing the licensure examination by fraudulent means, conduct either unbecoming a doctor or detrimental to the best interests of the public, or willfully betraying a professional secret.

A doctor's license may be suspended if a court appoints a guardian for him

or if the licensee is committed by court order for reasons of mental illness, mental deficiency, or inebriacy, to a mental institution, or if he is convicted of the crime of abortion.[29]

D. Restrictions on Delegation of Functions

Assuming that the person assisting the doctor, in whatever capacity, is qualified, it seems clear that certain functions can be delegated to him by the doctor. This delegation may not, however, be so broad that it can be said that the assistant, in terms of the statute, is "practicing medical care." If the delegation is too broad, the statute is violated. The statute defines "practicing without a license" primarily in terms of recommending, for a fee, any drug or other treatment.[30] Court interpretations, however, have broadened this to include diagnosing an injury or disease,[31] performing surgery,[32] and rendering advice concerning a patient's general state of health.[33]

Discussion

Delegation of certain functions by the physician appears desirable. It may permit the doctor to make more efficient use of his time. Health assistants have demonstrated the ability to do some jobs just as well as doctors. It may thus serve to reduce costs of care as well as increase the effectiveness of that care.

The danger of delegation lies in the possibility of delegating too many functions to an assistant or of delegating functions beyond the skill range of the assistant. It is possible that

public confidence in the medical profession would be lessened if it appeared that delegations were not in the patients' interests but rather for the physicians' convenience.

Assuming that it might be desirable in some instances to facilitate delegation of some physician functions, an exception in the statute could list the functions which could be delegated to assistants. Perhaps a more effective method would be to have the statute set forth in general terms the delegated functions to be performed only at the direction and under the supervision of a physician. The physician then would be responsible, under well-settled principles of tort and malpractice law, for any negligence on the part of the assistant in the performance of those functions. A statute whose purpose is the legitimation of physician delegation of certain of their functions to assistants would, then, serve the following purposes:

1. It would prevent the person delegated from being charged with practicing without a license.
2. It would prevent the delegating physician from being charged with aiding another in the commission of a crime, i.e., helping another to practice without a license.

3. It would prevent the physician from being held liable under malpractice law as a result of a finding that the delegation was negligence per se, i.e., just because he did, in fact, delegate some functions. This exception would in no way shield the physician (or possibly the hospital) from liability if the assistant performs in a negligent manner any of the functions delegated to him.

Four states (not including Minnesota) have already incorporated such exceptions in their licensure statutes.[34] Minnesota has adopted an exception of this type for dentists and dental hygienists and assistants.[35] In this scheme, the determination of which functions can be delegated is vested in the Board of Dentistry.

E. Restrictions on Scope of Practice

Generally, it is true that a physician possessing a license to practice medicine can perform and provide medical care and treatment for any person who may need or desire it. This right is qualified in some instances by the specializations which certain doctors adopt.

No one is prevented from seeing a pathologist or neurosurgeon if he has appendicitis, but, by customary practice of the profession, he probably would not. In other words, custom dictates that only certain patients, i.e., those with certain types of health problems, see certain types of

physicians, i.e., those with the appropriate specialties. Patients may visit these specialists on their own, or, quite often, they may be referred to them by other physicians.

There is a certain amount of support in Minnesota law for the proposition that a doctor must refer certain cases to specialists. First, the legal standard for negligence by doctors in Minnesota involves doing what a reasonable doctor in that locality would have done under the same circumstances.[36] This standard in certain cases might require that a patient be referred to a specialist.[37]

Second, the Minnesota Supreme Court has indicated that a doctor must seek "assistance" or "consultation" when it appears that he knows or should know that he is "incompetent" to deal with a given situation. Since "assistance" and "consultation" can possibly be taken to mean referral to a specialist, the question is how the term "incompetent" is interpreted. It seems likely that, if additional cases arise on this subject, the definition of "incompetent" will shift to include one not possessing specialized knowledge in an area. Thus, there may eventually evolve a legal requirement that doctors refer patients to specialists.

A related problem is that of the continuing education and training of physicians. Some continuing education and training in the years after medical school and graduate training is probably desirable in order to enable physicians to practice medicine comparable to that practiced by other physicians in that locality.

Osteopaths

A. Restrictions on Gaining Initial Authorization to Practice

In order to practice osteopathy in Minnesota, it is necessary to obtain a license. This license is issued by the State Board of Medical Examiners to the applicant, who must be of good moral character; possess a certificate of registration in the basic sciences; take and pass an examination administered by the Minnesota board or the National Board of Medical Examiners for osteopathic physicians and surgeons; pay the appropriate fees; upon passing the examination, prove that he has a degree from an approved osteopathic school and that he has completed one year of graduate training in an approved institution.[38]

The Board of Medical Examiners is the same body that licenses doctors of medicine. The one member of the board that must be a qualified osteopath is appointed by the governor from a list of names recommended by the Minnesota State Osteopathic Association. The board is authorized to adopt rules and regulations for carrying out the purposes of the chapter relating to physicians and surgeons and osteopaths.[39]

B. Restrictions on Location of Practice

A doctor of osteopathy licensed in another state or foreign country cannot practice in Minnesota without obtaining a license from the Minnesota Board of Medical Examiners.

If the applicant has a license from another state, he must furnish evidence that he has a degree from an approved school, that he has completed twelve

months of graduate training at an approved institution, that his license is currently valid, and that he has a certificate of registration in the basic sciences. He can then be granted a license by the board without taking the examination.[40]

If an applicant from another state does not possess a license from that state but has taken and passed an appropriate examination, has completed twelve months of training at an approved institution, has obtained a certificate of registration in the basic sciences, and is of good moral character, he may be issued a license to practice in Minnesota if the board is convinced that the examination taken by the applicant satisfactorily covered all relevant subjects.[41]

A doctor of osteopathy licensed to practice in Minnesota may obtain from the Board of Medical Examiners a license to practice medicine in Minnesota if he passes an examination in those branches of medicine in which he has not previously been examined and which are required of doctors of medicine.[42]

C. Restrictions on Retention of License

Licenses can be revoked for what is termed "immoral, dishonorable, or unprofessional conduct." These are essentially the same conditions upon which the license of a physician may be revoked. The only additional dimension which th phrase has for a doctor of osteopathy is the requirement that his school of healing be identified in the professional use of his title, such as "D.O." or "doctor of osteopathy."[43]

D. Restrictions on Delegation of Functions

The restrictions are the same as for doctors of medicine.

E. Restrictions on Scope of Practice

A person holding a license to practice osteopathy is not permitted to practice medicine to the extent that it is outside the scope of the field of osteopathy. He must confine himself to the practice of osteopathy "as taught in reputable colleges of osteopathy."[44]

Dentists

A. Restrictions on Gaining Initial Authorization to Practice

Practicing dentistry in Minnesota without a license is a gross misdemeanor.[45]

In order to obtain a license, one must possess a diploma from a dental college of good standing; be of good moral character; take and pass an examination which tests the applicant's fitness for the practice of dentistry, including a test of the applicant's knowledge of Minnesota laws relating to dentistry and the rules and regulations of the Minnesota State Board of Dentistry; and pay the appropriate fees.[46]

The Minnesota State Board of Dentistry comprises five members, all licensed dentists, appointed by the governor from a list of names submitted by the Minnesota State Dental Association. The board administers the examination and may adopt such rules and regulations as are necessary to effectuate the Dental Practice Act.[47]

Licenses to practice dentistry need not be obtained by doctors of medicine unless dentistry is their specialty; dentists employed by the U.S. Armed Forces, Public Health Service, or Veterans Administration; dental students when acting under the direction and supervision of licensed instructors; dentists from other states appearing in Minnesota as authorized clinicians; persons making roentgenograms of dental or oral tissues in a hospital or under the supervision of a physician or dentist; persons working in a dental laboratory.[48]

Dentists who have a license from another state can be issued a Minnesota license without taking the examination if, in the opinion of the board, the state of their current licensure maintains standards of examination and enforces laws regulating practice substantially equivalent to those of Minnesota.[49] The examination may also be waived for persons who do not possess a license but who have a certificate of qualification from the National Board of Dental Examiners or who have maintained an adequate scholastic standing in dental school.[50] This waiver, however, does not apply to that part of the examination relating to the laws of dentistry in Minnesota and the rules and regulations of the board.[51]

B. Restrictions on Location of Practice

There are no requirements that a dentist must practice in any particular part of the state. Neither are there any statutes creating loan or scholarship programs for future dentists -- as there are for doctors and nurses -- which makes practice in Minnesota after graduation a condition for receipt of a grant.

C. Restrictions on Retention of License

Licenses can be revoked or suspended by the board on the following grounds: fraudulently obtaining a license; conviction of various types of criminal offenses; incompetence or habitual intemperance or use of narcotics; conduct unbecoming a dentist or contrary to the best interests of the public; violation of provisions of the Dental Practice Act or of the rules and regulations of the board; failure to maintain adequate safety and sanitary

conditions for a dental office in accordance with standards established by the board; or employing, assisting, or enabling an unlicensed person to practice dentistry in any manner.[52]

D. Restrictions on Delegation of Functions

There are three types of dental auxiliaries specifically mentioned in the Dental Practice Act, and each perform, to some extent, acts which could be classified as the practice of dentistry.

Dental Hygienists. The statute permits dental hygienists to perform functions or services which are "educational, diagnostic, therapeutic, or preventive in nature."[53] This provision allows a skilled hygienist to be of great help to a dentist, because it allows the dentist to delegate to the hygienist many of the functions which call for less skill and knowledge than that normally possessed by a licensed dentist. To insure against delegating duties and functions beyond the capability of the hygienist or those which should properly be done only by the dentist, the statute imposes some limitations.

First, the services or functions performed by the hygienist must be authorized by the Board of Dentistry.[54] This gives the board a great deal of flexibility in determining which services and functions may be delegated to a skilled and well-trained hygienist. Given this flexibility, the board can investigate, study, and experiment under controlled conditions to determine what a well-trained hygienist might be able to do. Thus, the board can permit greater or lesser delegation as circumstances and studies may warrant.

Second, the statute specifically prohibits the hygienist from establishing a final diagnosis or treatment plan for a patient.[55]

Third, the services and functions delineated in the statute can only be performed under the supervision of a licensed dentist. This insures that the work being done by the hygienist is continually being monitored by the person who is most familiar with the capabilities and skills of the hygienists -- that is, the hygienist's employer or supervisor. It should insure, too, that the dentist is continually aware of the patient's condition and progress while the hygienist is performing his duties.

A further limitation on this delegation, but not mentioned in the statute, is of considerable importance. If the dentist delegates to the hygienist a function which is then performed negligently, both will be liable for any injuries or damages sustained.[56] This limitation makes it doubly clear that a dentist cannot delegate any function, even if it is within the scope of the statute and the rules of the board, to a hygienist who is not well trained or sufficiently skilled.

A final, more general limitation is contained in the statute. It provides that any licensed dentist who permits the performance by a dental hygienist of any dental service other than those authorized by the Board of Dentistry shall be subject to license suspension or revocation and/or to prosecution.[57]

Dental Assistants. The statute does not specify what work can be performed by a dental assistant; it only indicates that a dentist may use an unlicensed person to assist him.[58]

Many of the limitations specified for dental hygienists are also applicable to dental assistants. The dental assistant may perform only those acts which the Board of Dentistry authorizes a dentist to delegate. The work done by the dental assistant must be done under the supervision of a licensed dentist. Any dentist who allows an unlicensed assistant to perform any dental service other than that authorized by the board may, as a result, lose his license and/or be subject to prosecution.[59] The dentist is also potentially liable for any negligence on the part of the assistant in performing any of the functions delegated to him by the dentist.[60]

The limitations in the statute on the work performed by dental assistants are more stringent than those applying to dental hygienists in one particular respect. Although it is clear from decisional law that the dentist is liable for the tasks and functions delegated to the assistant, the statute applicable to dental assistants makes this explicit and, further, imposes liability upon the dentist for all of the acts performed by the dental assistant when engaged in assisting the dentist.[61] Thus, the assistant may be performing a function which is normally performed by assistants but not specifically delegated by the dentist and if negligently performed, the dentist will be liable. To a certain extent, this would be the result even in the absence of the statute, because any dentist-employer is liable for the negligent acts of any person under his employ as long as those acts were performed within the course of employment.[62] Even if the dentist is not the employer (as would be the case in a hospital or

clinic, or possibly in a professional corporation arrangement) he is liable if he has used the services of the assistant who committed the negligent act.

In addition to the flexibility given the board to determine which functions or jobs may be delegated to the assistant, the board is granted the authority to permit differing levels of dental assistance.[63] This provision enables the board to establish a number of different categories of dental assistants, each category delineated by certain educational standards. In this way the dentist will be able to employ a dental assistant of the skill level needed. Also, this provision might enable an unskilled person to obtain a job as a dental assistant, and to advance in position and pay by virtue of the training and knowledge acquired while on the job.

Dental Technicians. The work of dental technicians is regulated only to the extent that they are engaged in "constructing, altering, repairing, or duplicating any denture, partial denture, crown, bridge, splint, orthodontic, prosthetic, or other dental appliance." However, this provision of the statute applies only when the work is performed by an unlicensed person, when it is done other than under the dentist's supervision, and when it is not done within the dentist's own office. The provision requires only that work orders in duplicate be made, one copy to be retained by the dentist for two years and one copy to be retained by the technician for two years in his place of business. Both files of work orders are to be open for inspection by the board at any reasonable time.[64]

If the technician works under the dentist's supervision and in the dentist's

office, these minimal requirements do not apply.[65] Thus, dentists have a large degree of freedom in their choice and use of dental technicians.

E. Restrictions on Scope of Practice

Essentially, a person licensed as a dentist is restricted to the practice of dentistry, which includes all those specialties recognized as legitimate branches of the profession.

Discussion

> While there is some indication in the law that a doctor must refer certain cases to a specialist, there is no similar requirement for dentists. However, to the extent that specialties in dentistry become matters of custom, and especially to the extent that work performed by specialists is outside of the capability or skills of the average dentist, a legal requirement of referral may arise. Such a requirement should pose no great problems for the profession. Physicians are increasingly subject to it, and as in their case, it will probably be applicable only in very unusual and rare circumstances.

A change in the Dental Practice Act in 1969 requires that all dentists be re-examined every five years, unless they participate in at least twenty hours of dental education every five years.[66]

Discussion

The provision requiring continuing education, although minimal,

is an important first step in assuring that dentists keep their knowledge and skills current -- thus maximizing society's utilization of them as health professionals.

Dental Hygienists

A. Restrictions on Gaining Initial Authorization to Practice

The statute applying to dental hygienists is not specifically permissive; it does require procurement of a license.[67]

A license may be obtained if a person is of good moral character, has graduated from high school or its equivalent, has graduated from an approved training school for dental hygienists or its equivalent, takes and passes the appropriate examination given by the State Board of Dentistry -- including a test on the Minnesota laws relating to dentistry and the rules and regulations of the board -- and pays the appropriate fees.[68]

The Board of Dentistry administers the examination and otherwise adopts rules and regulations relating to the work performed by dental hygienists.[69]

B. Restrictions on Location of Practice

A license may be obtained without comprehensive examination (although the test relating to the laws of Minnesota and the rules and regulations of the board must be taken) if a person has a license from another state and if that state maintains standards for examinations and laws regulating the practice which are substantially equivalent to those in Minnesota. It is not clear from the statute what procedure is to be followed if a person has a license from Canada or another foreign country.[70]

C. Restrictions on Retention of License

Dental hygienists may have their licenses revoked or suspended for the

same reasons specified for dentists.[71]

D. Restrictions on Delegation of Functions

Unlicensed persons may not perform the functions of a dental hygienist. There are, though, exceptions for dental assistants and dental technicians.[72]

E. Restrictions on Scope of Practice

Dental hygienists may perform only those functions specified in the statute. The general limitations on performance are the requirements for authorization by the board and performance under the supervision of a licensed dentist.[73]

To maintain his skills and knowledge, a dental hygienist is subject to re-examination every five years, unless evidence of participation in continuing education in that period is offered.[74]

Pharmacists

A. Restrictions on Gaining Initial Authorization to Practice

A license is required to practice pharmacy in Minnesota.[75]

In order to obtain a license, a person must be a citizen of the United States, be of good moral character, be at least 21 years of age, be a graduate of an approved school or college of pharmacy, take and pass the appropriate examination in pharmacy, and pay the appropriate fees.[76]

The State Board of Pharmacy administers the examination, grants licenses to qualified applicants, and may adopt various rules and regulations applicable to pharmacies and pharmacists.[77]

Members of the five-man board, all of whom must be pharmacists, are appointed by the governor from a list of names submitted by the Minnesota State Pharmaceutical Association.[78]

Persons who have licenses from other states may be granted a license to practice in Minnesota without taking the examination if the state of their licensure grants Minnesota licensees the same privilege and if the requirements for registration in that state are equivalent, in the board's opinion, to those in Minnesota.[79]

B. Restrictions on Location of Practice

There are no restrictions on where in Minnesota a licensed pharmacist may engage in the practice of pharmacy.

C. Restrictions on Retention of License

The license of a pharmacist may be revoked or otherwise limited on the grounds of fraudulent procurement of a license; conviction of various offenses; drug addiction; alcoholism; unprofessional conduct or conduct endangering public health; physical or mental disability which could cause incompetency; immorality; assisting an unlicensed person to practice pharmacy; or violating any provisions of the statute or any rules or regulations of the Board of Pharmacy.[80]

D. Restrictions on Delegation of Functions

There is a provision in the statute which permits a category of persons known as assistant pharmacists to perform largely the same functions as a licensed pharmacist. Assistant pharmacists are licensed and may apply for and take the examination for pharmacists if they wish. This provision, however, applies only to those persons licensed as assistant pharmacists before 1930.[81] Thus, there can be only a very few, if any, assistant pharmacists still practicing today.

Discussion

The intent of the original legislation was sound, i.e., to make available a group of persons who could perform many of the functions of a pharmacist, allowing the pharmacist to concentrate on the more important and more difficult aspects of his work. Consideration should now be given to the development of a pharmacist's assistant who could perform under the supervision

of a licensed pharmacist.

A pharmacist's intern is a person who has completed a certain amount of his education in pharmacy and who is registered with the board. An intern must work in a pharmacy for a year under the supervision of a licensed pharmacist in order to achieve licensure. He is usually a student, and the intern program provides the required practical experience for licensure as a pharmacist.[82]

E. Restrictions on Scope of Practice

As would be expected, only acts or functions normally performed by a pharmacist or someone skilled in the subject of pharmacy may be performed by a licensed pharmacist.[83]

Psychologists

A. Restrictions on Gaining Initial Authorization to Practice

In Minnesota one can apply and use the knowledge gained from the study of psychology without being required to have a license. However, in order to use the designation or to imply that one is a certified psychologist or certified consulting psychologist, one must have a license.[85]

To obtain a license, one must be at least 21 years of age; be of good moral character; be, or intend to become, a citizen of the United States; have received a doctorate or a master's degree with a major in psychology from an accredited college or university, or have received training deemed equivalent by the State Board of Examiners of Psychologists; have had a minimum of one year of employment as a psychologist; passed an examination given by the board within the preceding six months; take and pass an examination in psychology; and pay the appropriate fees.[86]

The requirement for an examination in psychology can be waived if the person possesses a doctorate degree with a major in psychology from an accredited college or university, or if the person has had training deemed equivalent by the board. Such a person must, however, have had at least three years of post-doctoral employment as a psychologist and must otherwise comply with the requirements listed above. The license awarded in this instance is one for a "consulting psychologist."[87]

A person who holds a license granted by a similar board in another state may be granted a license to practice in Minnesota without examination

if the standards of licensure in that state are, in the opinion of the board, at least equivalent to those required in Minnesota. A license for a "consulting psychologist" may also be granted without examination to a person who holds a diploma from the American Board of Examiners in Professional Psychology.[88]

The State Board of Examiners of Psychologists has seven members, all of whom must have qualifications no less than those required for initial licensure in Minnesota. The board is appointed by the governor. The Minnesota Psychological Association may submit three names for each opening on the board, and from that list the governor may appoint one member. The board is charged with the duty of administering the examination in psychology, and of prescribing whatever rules and regulations may be necessary to effectuate the provisions of the statute.[89]

B. Restrictions on Location of Practice

There are no restrictions on where a psychologist may practice, nor are there any requirements that a psychologist must practice in a particular location or in a particular type of facility for any length of time.

C. Restrictions on Retention of License

A psychologist's license can be revoked or suspended if he is convicted of a felony, if he fraudulently or deceitfully obtained a license, if he is found guilty of professional misconduct, or if he is physically or mentally unable to continue the practice of psychology.

D. Restrictions on Delegation of Functions

The only restriction on the unlicensed person is that he may not use any term which implies that he is a "certified psychologist" or "certified consulting psychologist."[90]

Since restrictions on the practice of psychology are minimal, doctors, dentists, nurses, and other health care personnel who might be expected to have a knowledge of psychology can utilize and apply their knowledge without fear of prosecution and with little likelihood that they would be faced with a suit for the negligent practice of psychology.

E. Restrictions on Scope of Practice

There appear to be no special restrictions on the type of work performed by psychologists. (Of course, they cannot practice a profession that requires a license -- e.g., medicine, dentistry, etc.) Work normally performed by a psychologist is unlikely to be considered the practice of medicine; however, the use of drugs or certain types of shock therapy in the treatment of patients clearly would involve the practice of medicine.[91]

Physical Therapists

A. Restrictions on Gaining Initial Authorization to Practice

It is not necessary to possess a license in order to practice physical therapy in Minnesota; however, the statute prohibits an unlicensed person from implying that he is, or representing himself to be, a physical therapist.[92]

In order to obtain a license, the applicant must be at least 21 years old; be of good moral character; have obtained a high school education or its equivalent; have graduated from an approved school of physical therapy; take and pass an examination on various aspects of physical therapy and certain related fields; and pay the appropriate fees.[93]

The State Board of Medical Examiners, with the advice and assistance of a State Examining Committee for Physical Therapists, administers the examination and passes on the qualifications for licensure of all applicants. The committee comprises three licensed physical therapists, one doctor of medicine, and one professor from an accredited course in physical therapy.[94] Neither the board nor the committee is authorized to prescribe standards for, regulate, or accredit any school of physical therapy as, for example, the State Board of Nursing does with respect to schools and courses of nursing.

Persons who have taken and passed the examination of the American Registry of Physical Therapists or the examination of a duly authorized board of another state or foreign country may be issued a license to practice in

Minnesota without taking the Minnesota examination as long as the standards of the other state or county are determined by the Minnesota board to be at least equivalent to those in Minnesota.[95]

B. Restrictions on Location of Practice

There are no restrictions on where physical therapists may practice in Minnesota.

C. Restrictions on Retention of License

The license of a physical therapist may be revoked or otherwise limited for drug addiction; excessive use of alcohol; conviction of a felony or an offense involving moral turpitude or any state or federal narcotics law; obtaining or helping to obtain a criminal abortion; obtaining registration by fraud; conduct unbecoming a physical therapist or not in the public interest; treating human ailments or conditions other than by authorized physical therapy; or practicing physical therapy without the prescription and direct supervision of a doctor of medicine.[96]

Licenses are suspended if a guardian for the licensee is appointed or if the licensee is committed to an institution by court order.[97]

In addition, licensed physical therapists can be charged with a gross misdemeanor if they fraudulently apply for or obtain their license; if they treat human ailments other than under the prescription and direct supervision of a licensed doctor of medicine; or if they treat human ailments other than by physical therapy.[98]

D. Restrictions on Delegation of Functions

If the acts of physical therapy performed by a person not licensed as physical therapist are acts that could legally be performed by some other licensed health care practitioner and the person performing them is so licensed and qualified, there is no violation of the law.[99] For example, if certain acts of physical therapy are normally considered to be part of the work of a licensed nurse, then a licensed nurse may perform such acts without fear of prosecution. This would not be the case, however, when acts of physical therapy are performed by non-licensed health care personnel, e.g., nurse's aides and physician's assistants. Such personnel could perform acts of physical therapy, but they would run the risk of being considered to be representing themselves as physical therapists. In such an instance, they could be subject to prosecution for a gross misdemeanor.[100]

E. Restrictions on Scope of Practice

The acts that can be performed in the course of duty by a physical therapist are fairly well delineated by the statute. The various means by which treatments may be given are part of the definition of physical therapy, and the physical therapist is not permitted to employ other means or treatments without risking the loss of license or the possibility of prosecution.[101] In addition, all physical therapy must be performed under the prescription and supervision of a licensed doctor of medicine.[102]

Registered Nurses

A. Restrictions on Gaining Initial Authorization to Practice

In order to use the appellation "registered nurse" (R.N.) or to practice professional nursing in Minnesota, one must obtain a license from the Minnesota Board of Nursing.[103] This license can be issued to an applicant if the applicant is at least 19 years of age; is of good moral character; is in good physical and mental health; has completed high school or its equivalent; has completed a course of study of not less than twenty-two months in an accredited school of professional nursing and holds a diploma from that school; attains a passing score on the examination(s) given by the Board of Nursing; pays the appropriate application fees.[104]

The Board of Nursing, comprising seven nurses who are appointed by the governor from a list submitted by the Minnesota Nurses Association, determines what the passing score for each series of the examination shall be.[105] The board is responsible for accrediting the courses and schools which prepare and train R.N.'s and is authorized to prescribe curricula and standards for these courses and schools.[106]

Prior to 1960, the board was authorized to issue a license to an experienced nurse if she did not meet the educational qualifications, as long as the board was otherwise satisfied that she was qualified.[107] Since this provision is no longer in effect, the only means available to obtain credentials is by undertaking twenty-two months of training at an accredited school. The educational requirement assures a certain minimum capability among R.N.'s.

The statute provides some assistance in the form of nursing scholarships for those persons who need financial support in order to obtain the required training.[108] Up to $1000 in scholarship funds can be awarded to qualified and needy students, the only condition being that the recipient practice nursing in Minnesota for at least one year following graduation.

Discussion

Those persons who possess the interest in and capability of becoming a registered nurse, but who, because of limited financial resources or other responsibilities, cannot attend a twenty-two month training program would appear to be unable to obtain the necessary credentials. Whether experience, together with a period of "on-the-job" or "in-service" formalized training, should be an alternative means of obtaining a license is a question for consideration. Incorporation of such a provision in the statute would arguably create a larger pool of R.N. licensure applicants (an examination might be used for all applicants in order to insure a minimum capability) and would yield more incentive for advancement to those persons in the health care system who are otherwise qualified and have the capability to obtain the credentials of a registered nurse. Currently, the nursing practice statute discourages personal advancement and career development on the part of some potentially qualified persons lacking the R.N. license. The statute makes the practice of professional nursing without a

> license a misdemeanor, but it also defines professional nursing as the performance of a service which requires the education, knowledge, and skill "ordinarily expected" of a person who has completed an R.N. training course.[109] In effect, the more one learns about nursing and health care and the more one attempts to put that knowledge into practice, the greater is the chance that he will be performing functions that an R.N. would be "ordinarily expected" to perform. However, the point at which an "R.N. function" becomes the "unauthorized practice of professional nursing" is exceedingly unclear. Therefore, as the statute now reads, a person must be exceedingly cautious in learning and applying new skills. There is an exemption for the unlicensed practice of professional nursing when directions are provided by an R.N. or M.D. Nevertheless, the overall effect may be to discourage obtaining and using new skills and knowledge by those not having met the explicit requirements leading to the licensure of registered nursing.

Possession of a license from some other state or country does not obviate the necessity of having a license issued by the Minnesota Board of Nursing if one wishes to practice in Minnesota. Applicants may be issued a license without examination if they have a duly issued license from another state or country and if, in the opinion of the board, the applicant has qualifications equivalent to those required for initial licensure in this state.[110]

A nurse licensed by another state who is carrying out official duties in the course of his employment for the federal government need not have a Minnesota license.[111]

B. Restrictions on Location of Practice

There is no restriction other than the requirement that recipients of the scholarships provided for in the statute practice in Minnesota for at least one year.

C. Restrictions on Retention of License

The statute on nursing does not designate an age at which a nurse is divested of a license. Licenses may be revoked if the licensee is found guilty of fraud in obtaining a license, guilty of gross immorality or a felony, professionally or mentally incompetent, to be an alcoholic or drug addict, guilty of unprofessional conduct, or to have willfully and repeatedly violated the provisions of the Nursing Practice Act.[112]

D. Restrictions on Delegation of Functions

There are some exceptions to the requirements in the Nursing Practice Act that anyone practicing professional nursing must possess a license. One exception applies to persons who perform acts of professional nursing which also fall within the scope of practice of another profession or occupation for which the person is duly licensed.[113]

Nursing, other than professional nursing as defined in the statute, can be performed by anyone who doesn't claim to be a registered or professional

nurse.[114] Similarly, nursing may be practiced in a private home by anyone not claiming such status.[115] The statute specifically allows no one except nurse's aides to perform acts of nursing in the care of the sick when the acts are performed under the direction of an R.N. or an M.D.[116] The statute also fails to make any provision for acts of care necessary to prevent illness.

Discussion

Why this exception is so limited is not clear. Presumably, persons other than nurse's aides should be included and the duties performed not be limited to nursing care of the sick. For example, performance of tasks related to health maintenance and prevention of disease should be permitted. If nurse's aides, under the direction of an R.N., can competently perform acts of nursing, so, too, it would seem could other auxiliary personnel. Allowing other personnel such as physicians' assistants or technician assistants, to perform certain functions would lessen the load for the R.N. and might make the R.N. more efficient by allowing delegation of specific functions.

When acts of nursing are performed under the supervision of a licensed physician, such acts are not necessarily limited to nursing as defined by statute. This more general and more flexible provision could well be a model for similar provisions

for other areas of health care. It allows the physician to delegate whatever nursing functions and duties he wishes to whomever he deems competent. The persons to whom acts of nursing are delegated need not be licensed and their qualifications are determined, in effect, by the delegating physician, thus granting him the freedom to use whoever can do the job or is most readily available. Naturally, however, the physician would be liable for any acts of negligence on the part of the persons carrying out the functions and duties delegated. The limitations on this exception would seem to lie in the uncertainty of meaning of the word nursing -- i.e., What acts are covered? -- and supervision -- i.e., Must it be immediate and close supervision or may it be an extended and generalized direction or delegation?

E. Restrictions on Scope of Practice

As long as the R.N. is duly and currently licensed and is capable and qualified, he or she can legally perform any health care tasks within the field of medicine with the exception of those acts which constitute the practice of medicine.

Licensed Practical Nurses

A. Restrictions on Gaining Initial Authorization to Practice

A license is required in Minnesota in order to use the designation "licensed practical nurse," but is not required in order to practice nursing for hire, as long as the services rendered do not involve the specialized education and skill required in professional nursing.[117]

To obtain a license, an applicant must be at least 18 years of age; be of good moral character; be in good physical and mental health; have completed an appropriate approved course of nine months or its equivalent; take and pass an examination; and pay the appropriate fees.[118]

The licensing organization in Minnesota is the Minnesota Board of Nursing, which is the same board that licenses registered nurses. However, when it is deliberating on the affairs and training of licensed practical nurses, it is augmented by an M.D., an L.P.N., and a licensed hospital administrator or superintendent. The board administers the examination and passes on the qualifications of the applicants granting licenses to those who meet the qualifications. The board also sets standards for and evaluates and approves schools and courses of practical nursing.[119]

Applicants from another state or a foreign country may be issued a Minnesota license if, in the opinion of the board, they have qualifications equivalent to those required in Minnesota.[120]

B. Restrictions on Location of Practice

There is a provision in the statute for granting scholarships up to $300 for students taking a course in practical nursing at an approved school. The only condition is that the recipient must practice nursing in Minnesota for at least one year after graduation.[121]

C. Restrictions on Retention of License

The license of an L.P.N. may be revoked or otherwise limited if the licensee obtains or attempts to obtain a license by fraudulent means; is guilty of gross immorality or a felony; is negligent or unfit in his work; is an alcoholic or drug addict; is mentally incompetent; or has repeatedly and willfully violated any of the provisions of the statute pertaining to L.P.N.'s.[122]

D. Restrictions on Delegation of Functions

Any function, job, or duty performed by a licensed practical nurse can be performed by an unlicensed person as long as that person does not represent himself to be a licensed practical nurse.[123]

E. Restrictions on Scope of Practice

A licensed practical nurse can practice any type of nursing as long as it neither involves the specialized education and skill required of a registered nurse, nor, of course, the practice of medicine.[124] However, it is not clear from the statute what is involved in the practice of professional nursing, and, thus, it is unclear what the limits of the L.P.N.'s duties are.

Podiatrists

A license is required in order to practice podiatry. A license may be obtained if the applicant is over 21 years of age; is of good moral character; has completed high school or its equivalent; has completed one year in a college of liberal arts; has a diploma from a recognized school of podiatry requiring at least a four-year course of eight months each; takes and passes the examination given by the Board of Registration in Podiatry; and pays the required fees.[125]

Licenses may be revoked for unprofessional conduct, which includes betraying a professional secret, professionally associating with an unregistered podiatrist or anyone convicted of a criminal offense, being found guilty of offenses involving moral turpitude or using alcohol or drugs to excess, practicing podiatry with other than an approved organization, association, or business, and violating any provision of the statute relating to podiatry.[126]

Optometrists

A license is required in order to practice optometry and to engage in certain related activities.[127] A license may be obtained if the applicant is 21 years of age and of good moral character; has completed high school or its equivalent; has graduated from an approved optometric school or college requiring not less than four years attendance and a minimum number of hours of instruction in certain specified subjects; takes and passes an examination administered by the State Board of Optometry; and pays the required fees.[128]

If a person has a license from some other state and if he has practiced for at least one year in that state, he may obtain a Minnesota license. The license will be issued without examination if the requirements for licensure in the other states are equivalent to those required in Minnesota.[129]

Licenses may be revoked if the licensee has been convicted of certain crimes; is found by the board to be grossly incompetent; is afflicted with contagious disease; is a habitual drunkard; and is guilty of unprofessional conduct (which includes certain fraudulent and unethical practices).[130]

Midwives

In order to practice midwifery in Minnesota a license is required. A license may be obtained by showing evidence of a high school education or its equivalent and by presenting evidence of completion of a course in midwifery at an approved school or hospital, or by taking and passing the examination given by the Board of Medical Examiners.

A license to practice midwifery can be revoked for unprofessional or dishonorable conduct; or failure to report births, deaths, or puerperal fever and other contagious diseases as required by law or regulation. A license may be suspended if a guardian for the licensee is appointed or if the licensee is committed to an institution.

THE EFFECT OF MEDICAL MALPRACTICE LAW ON LICENSURE LAW AND HEALTH MANPOWER UTILIZATION

In the preceding discussion of individual categories of health care personnel, it was noted that in addition to possible penalties for violation of one of the licensure statutes, there was the possibility that a practitioner might be liable for damages by reason of various decisional principles of tort and malpractice law. These principles of law are significant and pervasive and apply in some form to all of the categories of personnel discussed in this paper.

The most basic principle in the area of tort and malpractice law is that persons will be held liable for damage caused by their own negligence.[133] The basic meaning of negligence is that a person has acted toward or in regard to another person in such a way that a normal, average person, exercising due care and proper regard for the interests of the other person, would not have acted. Under this doctrine, for example, neurosurgeons, nurses, and nurse's aides each will be liable for causing harm or injury to another through the performance of negligent acts. There are generally three primary reasons for holding a person liable for damages when another is injured or harmed:[134] 1) the person who was the major cause of harm to another should be responsible for his actions; 2) there is a need to compensate the injured party; and 3) it is thought that imposition of liability will, to some extent, deter socially undesirable conduct.

Once it is understood that a person or an entity can be held liable for the

performance of negligent actions, the aspects of medical malpractice law that relate to health manpower utilization can be identified. Central among these is the question, What entity or individual may be liable in addition to the one determined to be principally liable and under what circumstances? Very often the negligence of one person will be imputed to another person, irrespective of the fact that the other person may have had nothing to do with the actual act of negligence.[135]

It is a legal proposition of general applicability that a person or entity employing or directing another for certain purposes is liable for the negligent acts of that person if such acts are committed in the course of employment or retention.[136] Thus, the "master" is liable for the negligence of the "servant." Accordingly, doctors are liable for the negligence of those hired and employed by them, and dentists are similarly responsible for the acts of their assistants.

Health care institutions, such as hospitals, are also liable, as entities, for the negligent actions of their employees.[137] When physicians are considered employees of hospitals, the hospital is liable for their negligence as well.[138] In the case of physicians who have only occasional contacts with the hospital, that is, the "visiting staff," the institution is usually not liable for their negligence.[139]

There are a number of reasons commonly given for requiring a person or entity to respond in damages for the negligent acts of employees hired by them or under their control. Since the employer is responsible for directing the employee to carry out his purposes, inherent in which are

certain risks that employees will sometimes act negligently, the employer rather than the injured party should bear the burden of those wishes as a cost of engaging in that particular activity. Since the employer is more likely to be able to compensate those persons injured by the negligent acts of employees, he should bear those costs.

The burdens imposed by this doctrine, referred to as "respondent superior," are probably reasonable ones. The doctrine encourages, if not requires, employers to purchase liability insurance, and it may also encourage employers to employ only capable and conscientious employees, to train them thoroughly, and to evaluate their work on a continual basis. In this context, then, the dynamic relationship between malpractice law and licensure law is evident. Medical malpractice law influences the quality of care rendered by health care personnel by evaluating the service to determine whether it was rendered free from negligence. Licensure laws can be considered to influence the quality of care through establishing standards for entry into the specific field of practice.

The imputation of responsibility, however, is occasionally limited. For example, in some states a public or nonprofit hospital cannot be sued for the negligent acts of its employees because of the shield of sovereign or charitable immunity.[140] When this defense is interposed, the incentive for and likelihood of imposing liability on a doctor or comparably skilled professional probably increases. Another limitation on the imputation of responsibility is that an employer or person controlling the acts of another is not liable if the negligent employee was not

acting within the scope of his or her employment at the time that the negligent acts occurred.[141]

Imputation of responsibility has been expanded in some areas. It is possible to impose liability for the negligence of another on a person who was not the employer of the person alleged to have been negligent. This occurs when a person is exercising "control" over another not actually his own employee. A common example drawn from the health care field might arise if a surgeon uses the services of nurses and other assistants employed by a hospital. If, in this instance, one of the nurses or assistants negligently causes injury, the surgeon can be held liable despite the absence of the employer-employee relationship.[142] Another instance of this type may occur when, in the performance of an operation, a patient is injured, apparently negligently, but it is not known by whom or how. In such a case everyone in the operating room may be held liable, and because the surgeon may have the greatest capability to pay, he may be the individual against whom the action is brought.[143]

Both of the types of cases just mentioned can operate as barriers to the optimal utilization of health manpower. This is particularly true if surgeons must rely upon hospitals (which may be immune from suit) to furnish assistants whose capabilities may be unknown to him. He may choose to utilize as few assistants as possible or to decline to utilize personnel to perform functions for which they possess skills but lack the proper authority, or to utilize skilled assistants without licenses.

If the law permitted a surgeon in charge to use such personnel as he might freely choose, he might be more willing to use "assistants" to innovate and to match tasks with capabilities.

There are generalized standards of performance and it is against these that the performance of a given health care practitioner is to be measured. These standards affect utilization of health manpower in an important way, especially the utilization of personnel possessing licenses, and they are closely linked to licensure restrictions on utilization.

These standards are incorporated into the law as a major component of medical malpractice law, namely, the "standard of care" doctrine.[144] The notion underlying this doctrine is that in order to impart liability to a practitioner for the negligent performance of an act, it must be known against what standards of performance the practitioner is to be held. This doctrine is a facet of general negligence theory which requires a duty with recognizable standards to be identified and imposed before a finding of negligence can be made. The standard of care in medical malpractice law is that degree of care that the average practitioner is expected to provide in a given locality. The "standard of care" doctrine has influenced utilization practices since utilization may or may not conform to the accepted standard.

If a person is injured by an unlicensed aide or assistant in the course of medical treatment, it must first be determined whether the assistant was negligent. If the assistant, when he allegedly committed an act of

negligence, was performing an act which only a person possessing a certain license was allowed to perform, the law of some states holds that the bare fact of violation of the licensure statute conclusively establishes negligence.[145] In other words, if there is an injury and if the unlicensed assistant was performing an act for which he was not licensed and which allegedly contributed to the injury, liability may be imposed as to both the assistant and the employing and/or supervising physician or institution, without additional evidence.

In other states performance of health care functions by an unlicensed assistant or of extra-statutory acts by a licensed auxiliary may lead to a "presumption" of negligence.[146] This presumption, although not conclusive, makes it considerably easier for the jury or judge to find that there was negligence on the part of the health assistant, because it gives the plaintiff-patient an advantage which must be overcome by the defendant. In such a case the presumption of negligence arises because utilization of the health care practitioner in the particular instance may not have conformed to the prevailing standard of care. The unlicensed person may conceivably have been more capable of performing the act than a licensed person. Such a fact, however, would not prevent the presumption of negligence from arising.

The result, seemingly, is that physicians and others may be inhibited from using persons, otherwise capable and trained, for the performance of functions for which they are not licensed.[147]

Utilization practices are probably influenced more by the practitioners' fear of malpractice liability than by fear of violating the licensure laws.

THE USE OF PHYSICIANS' ASSISTANTS

In part because of the experience in utilization of medical corpsmen in the Armed Services, and in part as a response to growing manpower shortages, a number of institutions have initiated programs to train personnel to assist physicians. It is accepted by many researchers in the field that manpower shortages are not due simply to too few practitioners, but rather are compounded by maldistribution of manpower by specialties as well as geographically. The Brookings Research Report 64 "Medical Manpower for the 1970's" stated that because the shortage is of services as well as personnel and because of the difficulties involved in producing more manpower in the established fields, goals must "be reached in different, less costly ways of fewer resources. Medical manpower policy . . . must consider the benefits of alternative forms of organization and the usefulness of new and different kinds of personnel."[148]

The AMA's Council on Health Manpower in 1969 listed thirteen existing programs training assistants for different types of physicians.[149] Four of these train general assistants and nine are concerned with producing more specialized assistants such as the anesthesia assistant being trained at Emory University School of Medicine.

One of the first programs began at Duke University in the early 1960's. After formulation of a program, the first four candidates, all ex-Navy corpsmen, began their training in 1965. The program has now progressed to the point that a number of specialty courses are offered to the trainee during his two-year training program. The trainee's credits can also be

used toward a bachelor's degree.

Another program which has utilized the past training of medical corpsmen is the Medex (Medical Extension) program at the University of Washington. The most pressing need was to expand physician care in rural communities and small towns. Fewer medical school graduates were going into rural communities, and a number of doctors in rural areas in Washington were considering moves to cities because they were unable to keep up with the demand placed on them. Fourteen of these general practitioners were chosen to serve as "physician-preceptors" for the Medex training program.

The Medex program for ex-medical corpsmen lasts fifteen months; twelve months is spent with the preceptor learning basic skills in a particular practice. By using an assistant, the physician is, in most cases, able to lighten his workload and often even increase the number of patients he can see each day.

The medical corpsman is a good candidate for such programs because of his past training and experience. A number of schools are now expanding the role of the nurse to enable her to perform tasks which the physician now performs. For instance, the pediatric nurse-practitioner now being trained at the University of Colorado has been shown to be useful particularly to solo pediatricians, and it appears that the quality of child care has been enhanced.[150] This program is envisioned as one which "expands" the role of the nurse. It does not claim, as the Medex and the Duke programs do, to be creating a completely new ancillary

health occupation. Pharmacists have also been suggested as candidates for training as physicians' assistants.

Because most of these programs are quite new, there are a number of questions which have yet to be answered concerning the use and acceptance of physicians' assistants. For instance, Israel Light asks, "Do we have in mind the creation of a new job or specialty having the potential for replication elsewhere and for development into a nationally visible member of the health team?"[151] There are, so far, no data to tell how well one of the Medex ex-medics would work out in Watts, although he seems to be of great help in the rural-urban physician distribution problem in Washington. What will be the relationships of the new assistants to the physicians and others in the health field? Will they be accepted in this new role? There is some evidence to suggest that the doctors would for the most part welcome some type of assistant. Of the 32 percent of the physicians who responded to a study done in Wisconsin, 61 percent said that assistants were needed and 42 percent said they would use an assistant in their practice.[152] A problem has arisen, however, about the scope of such an assistant's duties. The authors of the study suggest that in formulating training programs for assistants, it should be kept in mind that physicians often have very different views on appropriate responsibilities for assistants. Nurses may also be unsure of how to react to these assistants in hospitals; for instance, objections were made by nurses to the initiation of the Duke program.[153]

The key to the role of the physician's assistant is that he must be super-

vised by a doctor and he must have a prescribed role -- although this need not be the same for each type of assistant. It is to be hoped that it would be possible to write reasonable job descriptions without becoming too rigid. Each assistant would in all likelihood not be doing the same type of work or even have the same amount of responsibility after his graduation. The physician under whom he works would have his own ideas of the role of such an assistant.

At present, a physician's assistant is not officially licensed by any state, although in the State of Washington a form of certification has been used to legitimatize the assistant. The State of North Carolina is considering legislation authorizing delegation of duties to physicians' assistants.

Because many of the training programs that have been initiated enroll former medical corpsmen, a review of the training that medical corpsmen obtain in service could be useful.

The major armed forces services each conduct their own in-service training programs for corpsmen. Generally such corpsmen have had no prior training or experience in health related fields. The armed services train approximately 32,000 men each year in roughly thirty different health care specialty fields.

All indications are that the military does an excellent job of training these men quickly and thoroughly in specified health care tasks. The Committee on Allied Health Personnel of the National Academy of Sciences has found that the military utilizes supporting health personnel with no

apparent concession in the quality of the care delivered. Nevertheless, of the approximately 30,000 medical corps who leave the service each year, few are able to find positions in health occupations which enable them to use their training and experience. Nursing is an occupational category conceivably open to corpsmen, but quite often corpsmen are reluctant to enter nursing which has traditionally been a female occupation.

It must be kept in mind that not all the medical corpsmen leaving the service every year are necessarily interested in entering health occupations. This is especially true of the Army trainees since recruitment practices have compelled the training of many men in the medical corps who may not have otherwise chosen this role. About 80 percent of the medics in the Army are conscientious objectors who have had some college education and may have already chosen a different career.[154]

There are other differences between the Army, Navy, and Air Force programs. The Army gives a short eight-to twelve-week course for the regular medic who may perform rather complex and skilled tasks on the battlefield during wartime, but whose job description corresponds closely to that of an orderly in a civilian hospital. It would seem that either the medic is overtrained as an orderly or undertrained as a medical assistant in the field. The Navy has a longer training program which tends to produce more highly skilled men. One reason for this is the necessity of having better qualified personnel available on ships at sea. The Air Force medic on the other hand is neither trained to possess the emergency skills of an Army medic nor the manifest skills essential on shipboard.

The Air Force, however, appears to have more programs for training men in dental auxiliary positions.

More specifically, the Army Military Occupational Specialty (MOS) System distributes its thirty training areas into ten occupations, each known as an occupational area. Each trainee undergoes basic military training after which he is given his initial specialized training. The MOS 91A is considered the most basic category and provides early training for those who will be advancing into more specialized areas. Specialist training in the Army ranges from four weeks for physical therapy to forty weeks for the practical nurse equivalent, and on-the-job training ranges from seven weeks for the occupational therapist to fifty weeks for the brace specialist. The specialist training courses are conducted at the Army Medical Field Service School, the Army Medical Department Veterinary School, and at Fitzsimons General Hospital. Nine Army hospitals conduct the forty-week course for the specialists who will receive training equivalent to that of licensed practical nurse.

The Air Force provides a much more selective system for choosing future medical corpsmen than does the Army. In a system similar to the Army's, the new recruit must go through basic military training before beginning training at the Medical Services School at Sheppard AFB in Texas. From there the airman usually is routed either into specialist training or to on-the-job training for a specific health assignment.

The Hospital Corps in the Navy appears to have a much more extensive training routine for corpsmen than either the Army or the Air Force. The

Hospital Corps Training Program is divided into three sections: basic school, advanced schools, and medical technical schools. The length of the basic course is sixteen weeks, considerably longer than in either the Army or the Air Force. For those who attend the advance hospital corps school, a twenty-week course is required, after which the corpsmen is able to handle certain assignments, indpendent of medical officers. The length of training in the medical technical schools depends upon the specialty of the corpsmen. Training, however, ranges from seven weeks for a laboratory optician to sixty weeks for a clinical laboratory corpsmen.

At present the intensive training and job experience which corpsmen obtain while serving in the military is usually not used after discharge from the service. The few physician assistant programs include only a very small fraction of these trained personnel. Project Transition, sponsored by the Department of Defense, attempts to aid all returning servicemen in securing civilian employment. More specifically, Operation MEDIHC (Military Education Directed into Health Careers) of the Department of Health, Education, and Welfare is intended to serve only discharged servicemen with experience in health occupations. The Committee on Allied Health Personnel has suggested some areas for special emphasis in these programs. They feel that the ex-corpsmen should be given assistance, including financial support, in taking examinations for courses which would qualify them for civilian employment in selected occupations.

Possibly a more useful suggestion, also proposed by the committee, is that present laws and regulations be examined with the objective of

securing changes to legitimize presently unqualified personnel, who may possess the necessary skills and knowledge to render a particular type of health care. Equally important, not only for ex-corpsmen but for any of the paramedical personnel, is the creation of new promotional steps so that individuals who seek advancement in health careers need not repeat education and training. Current regulations require this, not only of corpsmen who might find much of such training redundant, but also of other categories of health personnel.

SECTION 4: ALTERNATIVE PROPOSALS FOR LEGISLATIVE ACTION

This paper has been essentially descriptive. In this final section some of the possible alternatives for legislative change are given along with some analysis of their feasibility or desirability.

LICENSURE LAW

Proposals have ranged from keeping the status quo to completely abandoning licensure laws. Some of the major proposals for change along this continuum are given below.

Maintenance of Status Quo

This position is advocated by those who believe that legislative change is unnecessary. It is argued that the law now has sufficient flexibility to accommodate the entry of new paramedical personnel through delegation of duties by licensed practitioners. Proponents of this position believe that the shortage of health care personnel can be solved by augmenting the numbers of practitioners in existing licensed professions.

Perhaps one advantage of this position is that attention is not called to the significant deviations from prevailing law in utilization practices. However, if present trends are uncorrected, maintaining the status quo may aggravate some of the problems that have been discussed in this paper.

It is true that there is some flexibility in current law by virtue of a general delegatory authority, but the precise nature and extent of this

authority, in the absence of statute, is left to be determined by litigation. Thus, resolution of the very real problems of numbers needed and utilization allowed may still be necessary, and most persons would agree that the courtroom is not the place to resolve them.

Amendment of Existing Licensure Statutes to License New Personnel

Statutes, of course, may be amended at any time. Thus, for example, if a new health manpower category is identified, a specific licensure statute can be sought to afford recognition to its members. Essentially the same process can be implemented to expand or contract the functions defined by existing licensure laws.

There is little doubt that this procedure has some utility. Basically, it is the procedure that has been followed since physicians were first licensed in this country, and it is the way in which new categories have been legally recognized.[155] The question to be asked is, Has this procedure been adequate? There are grounds for arguing that it has not. The rationale advanced by those who believe the procedure is deficient can be concisely stated: manpower shortages can be demonstrated. Also, studies have shown that the duties that can be capably performed by certain health care practitioners are not necessarily those granted by statute and custom. To the extent this rigidity prevents optimal utilization of personnel, the law prohibits practices which could alleviate the shortages and possibly lead to more comprehensive, high-quality health care.[156]

Certification of Paramedicals

Proponents of a certification procedure suggest an expansion of the rule-making power of licensure boards and agencies by vesting in them the authority to certify new paramedical types and to adjust the functional limits for each group under their jurisdiction. One significant advantage of this proposal is that it may be a quicker and more flexible alternative to legislative action -- quicker because a board may meet at will, whereas a legislature may legally meet only at established times. Another advantage may be that the boards are presumably better able than another authority to tailor its action to meet specific needs. Finally, because a board's power could be broad, new types of manpower could be rapidly integrated into the industry.

Some of the disadvantages are: (a) Boards and agencies usually comprise mostly professionals from the general category for which licensure authority is granted by statute. For example, nurses are usually responsible for deciding whether the auxiliary category for nursing should be established, and so on. These professional groups may not be willing to create new categories which might pose a threat to the established category. (b) If each operative board or agency were to be independently granted this additional power, opportunities for intra-category adjustment and shifting of functions would be minimal, at best. For example, even if the board for nurses were given the power to modify the functions to be performed by nurses, its action would neither be binding nor applicable to other personnel outside the jurisdiction of that board. (c) Certification can be said to be actually nothing more than a form of licensure.

Thus, even though it may be a more responsive tool and a more flexible way to deal with emerging paramedical groups, a certification scheme would not reduce the fragmented pattern of health care personnel classification.

Enactment of Specific and General Delegatory Statutes

Under the common law, that is decisional law, a physician and to a lesser extent other health care practitioners enjoy a general power of delegation, exercisable, however, only if direction and supervision are furnished by the delegating professional. But this power is not easily defined and numerous questions can be raised which may require clarification through litigation.

Arizona, Colorado, Kansas, and Oklahoma have attempted to deal with this problem by enacting general delegatory statutes. These statutes have simply codified the right presumed to be available to the physician to delegate health care functions under his direction and supervision. This type of statute is probably useful because it may vindicate the physician when the question of delegation of duties results in litigation. Such a statute may serve to encourage delegation of duties to licensed or unlicensed personnel.

If a general delegatory statute is not enacted, a specific type of delegatory power may be made available by different means. Thus, rather than a general power of delegation, the physician might be given the express power of delegation only to one other type of health care professional

such as a nurse or physicians' assistants. Such a statute is necessarily more limited than a general delegatory statute, and its enactment might raise the question of whether specification of delegation to only one type of auxiliary practitioner implies that delegation to others is not permissible.

The advantages to this proposal are principally that it affords recognition to a rather common practice. Its disadvantages lie in the fact that the legal status of emerging paramedical personnel is not clarified. While such a statute may have value, it may serve at best as only a partial solution.

Establishment of a Health Manpower Committee or Board

This proposal is expansion of the proposal to certify paramedical personnel. It calls for establishing a health manpower committee or board comprising representatives of all of the principal categories of personnel, and perhaps lay representatives as well. The disadvantage of broadening the power of the various licensure boards to certify health care personnel is that a series of largely autonomous certifying boards could not, through independent actions, effectively encourage optimal utilization, i.e., permit a matching betweens skills and functions.

There are basically two types of organizations which could be established: either a committee or a board. The differences are important. A committee might have only advisory authority, that is, it might be empowered only to review proposals for certification of new auxiliary classifications and

amendments to present law and make recommendations for action to the independent boards or agencies for each licensed health manpower category possessing certification authority, or to the legislature. A board, on the other hand, might be given exclusive certification authority by the legislature.

A committee, even without final authority, would be able to effectively deal with gaps and overlaps in functions and might also more objectively judge the necessity for certification for new categories of personnel. A board, however, would possess those advantages as well as those features relating to flexibility and responsiveness discussed under the proposal to certify paramedical personnel.

One disadvantage relates again to the fact that certification is merely a somewhat less formal type of licensure. Therefore any categories created, in effect, perpetuate fragmentation by certification rather than licensure. Another possible objection is that such a board or committee would be relatively free from public pressure. Notwithstanding the cumbersomeness of the legislative process, state legislatures are subject to the pressures of the electorate.

Investing Institutions with Licensure Authority

A theoretical possibility for the future hinges on the evidence that the unit of delivery for medical care is increasing in average size. There is also evidence that care is being rendered more frequently in institutional settings. Advocates of this proposal point to these trends

and suggest that if present manpower licensure, even if modified, is inherently too rigid and unresponsive to meet the increasing needs for manpower in the provision of health care, a more radical solution should be found. The alternative proposed involves supplanting licensure of practitioners by investing health care institutions and organizations with the responsibility for hiring and utilizing manpower within guidelines established by the state agency that licenses institutions.

There are, of course, some variations on this theme. One such variation contemplates establishing job descriptions for various institutional personnel problems. To amplify, a leading proponent of this device describes it this way: "The state hospital licensing agency could establish, with the advice of experts in the health care field, job descriptions for various hospital positions and establish qualifications in terms of education and experience for individuals who would hold these posts. Administrators certainly recognize the fact that although a professional nurse is licensed, her license does not automatically indicate which positions within the hospital she is qualified to fill. Individuals, because of their personal attainments, are selected to fill specific posts. Educational qualifications, based on both formal and in-service programs, along with prior job experience, determine if and how personnel should be employed."[158]

One distinct advantage to this scheme is that it would afford the institutional employer wide latitude in utilizing personnel, subject only to the job descriptions. Presumably, it would also allow the use

of unlicensed manpower in certain, approved jobs.

The proposal is not without its difficulties. Some of the questions that can logically be raised are: (a) How would the scheme affect utilization of institution-based personnel by independent physicians who presumably would bear no responsibility for their employment and utilization? (b) The scheme presents a solution for institutions, but does it offer any solution to extra-institutional utilization of personnel, i.e., physician practices, except perhaps in those instances where a physician group practice may have achieved institutional status? (c) Although purporting to offer a solution to the rigidities of licensure, doesn't the scheme re-introduce inflexibility at a different level? That is, to the extent that job descriptions become fixed, the functional scope written into the job description becomes limiting and thus, may become a constraint to utilization. (d) Is a job description developed in one institution readily transferable to another institution, or for that matter to another state?

A final variation on this proposal should be noted, although it may constitute a rather different and distinct approach. There are those who would opt for abandonment of existing personnel licensure in favor of a modified institutional-organizational form of licensure. Under this measure, a health care institution or a health care organization (e.g., a physician, non-facility-based practice, or an organization employing physicians and owning and operating facilities) would have to meet certain conditions relating to size, financial solvency, scientific

bases for care, and so on. Those satisfying these conditions would be licensed and exempted from complying with individual licensure laws. The license issued would simply permit the institution or organization to employ anyone whom it deemed suitable to perform in any capacity. The scheme is, of course, premised on the fact that the institution or organization would be wholly responsible for the results of care. As such it would be amenable to suit for bad results just as any other organizational entity is responsible for the quality of its product and for the negligence of its employees while acting within the scope of employment. As to those health care facilities and/or practitioners who do not meet licensing conditions, individual licensure laws would continue to be applicable. If the trend toward larger units of delivery persists, eventually the bulk of the health manpower supply would be exempted from individual licensure.

This proposal is subject to some of the same questions raised above except the one about flexibility, since adherence to job descriptions or similar constraints would not be necessary. An additional problem, however, regards quality of care. Although quality can be tested and controlled to some degree within a health care institution or organization, at least with incorporation of a set of job descriptions, some controls over utilization are required.

MEDICAL MALPRACTICE LAW

Malpractice law, since it is decisional law, is not as expeditiously changed as statutory law. Proposals for changes have, however, been made.

1. Attempts should be made to improve the deteriorating physician-patient relationship. It is argued that the stature of the physician in the community has diminished and has led patients to lose their traditional reluctance to engage the physician in litigation. In part this is the result of the increasing complexity of medical care resulting in specialization, and is therefore unavoidable.

2. Solutions to health manpower shortages should be found through easing licensure restrictions and allowing entry by paramedical personnel. Ostensibly, increasing health manpower would permit the physicians to devote more time to patients, while at the same time freeing physician time for more complicated and demanding health care services.

Undoubtedly, an increased supply of health manpower would alleviate some of the pressures on physicians -- pressures which presumably lead to mistakes. Although this proposal has some merit, more manpower could also lead to more litigation, especially if large numbers of new personnel were not accorded legal recognition. Further, the effect on quality of care by the introduction of large numbers of paramedical personnel has not been fully evaluated.

3. Joint screening committees comprising members of the Bar and physicians should be developed to review and screen all malpractice litigation. Although it is doubtful that recourse to the courts could be precluded by the findings of such a committee, pretrial

expenses might be substantially reduced and conditions favorable to settlement might also be fostered.

This screening committee approach has been most successfully undertaken in Tucson, Arizona. If the cooperation of both physicians and lawyers is maximized, the approach can be effective.

4. More effective regulatory measures to insure competency and quality of care should be created.

The types of regulatory measures referred to here are internal. In other words, efforts should be made by physicians, hospitals, and licensing boards to set and impose standards for performance. A recent Senate Subcommittee on Executive Reorganization, entitled "Medical Malpractice: The Patient versus the Physician" issued November 20, 1969, contains some data on the effectiveness of such measures concluding that they had been largely ineffective. For example, the report recites the record of regulatory agencies: "In 1968, the various state boards of medical examiners revoked the licenses of 64 physicians out of some 300,000."[158]

The Minnesota State Medical Association has recently proposed a program of utilization review and medical audit. A committee will be established to develop standards of care and to evaluate performance by the physician according to these standards. Utilization review is now being used in hospitals and nursing homes to determine whether patients are being kept in the hospital for the optimal amount of time. Both functions, but particularly that of medical audit, address themselves to the problem of quality control.

5. Arbitration of claims is yet another possibility. Arbitration is a quasi-judicial proceeding that is generally a less expensive and less complicated substitute for a trial. An arbitrator or panel of arbitrators assumes the role of the judge and jury. One of the chief difficulties with this method is that unless the parties to a dispute agree in writing before submitting to arbitration that they will be bound by the results, the arbitration award may only lead to the dissatisfied party seeking subsequent redress in the courts. And, there is, of course, the right of appeal in some instances.

6. The most sweeping change that has been advanced is analogous to disposition of industrial accident claims. Under the laws of many states, when an employee is injured in the course of his employment, his claim is processed through a quasi-judicial administrative process. The amounts available, if the claim is proved, are established by a schedule contained in the state statutory law. Such a procedure would reduce the high legal and administrative costs of malpractice litigation and would remove disputes from an emotionally susceptible jury.

Senator Ribicoff's report on medical malpractice reported that in most malpractice cases the claimant receives only from 30 to 40 percent of the settlement while the remainder is spent on legal fees.[159]

The proposal outlined here should be useful if and when changes are sought in Minnesota law. On this point a final note: since laws, both statutory and decisional, are products of each state, they differ except to the

extent that the process of studying the laws of other states and borrowing from them has resulted in general similarities. Thus, when laws are changed, each state tends to move independently and only informally do they observe trends in other states. Examination of the laws of other states reveals that few changes in the law relating to health manpower utilization have been made. Since Minnesota in many ways has been a leader in the delivery of high-quality health care, there is no reason why it could not be a leader in establishing enlightened legal standards in the laws applicable to health personnel.

FOOTNOTES

1. A. Flexner, "Medical Education in the U.S. and Candaa," Carnegie Foundation for Advancement of Teaching, Bulletin no. 4 (1910).

2. "Notes on Conference on Training Programs for Medical Laboratory Technicians for Community Health Services," Xerox. (Panel discussion on "Curriculum Patterns, Present and Future," December 5, 1969.)

3. Personal communication with University of Minnesota, Division of Medical Technology.

4. In Minnesota there are 8 baccalaureate programs, 4 associate degree programs, and 13 diploma programs for registered nurses. Of these 18 are currently accredited by the N.L.N. and several others are not eligible for accreditation yet. A school must have a class in its senior year before it is eligible.

5. All states except Delaware, Florida, Montana, and Puerto Rico accept the National Board of Dental Examiners test. However, all states that do accept it also require the applicant to take a state clinical exam.

6. All states except Arkansas, Florida, and Georgia accept this exam. Delaware, Indiana, Louisiana, North Carolina, and Texas accept the national board exam only if the individual already has licensure in another state.

7. Personal communication with the Minnesota Board of Pharmacy.

8. Title XIX, Medicaid, required all states to license nursing home administrators by January 1, 1970. Information is not available to determine how many states have complied as yet.

9. Anne R. Somers, Hospital Regulation: The Dilemma of Public Policy (Princeton, N.J.: Princeton University, Industrial Relations Section, 1969), p. 79.

10. Minn. Stat. § 147.01 (1967). "The board shall have authority to adopt such rules and regulations as may be found necessary to carry out the purpose of Minnesota Statutes, Chapter 147."

11. Minn. Stat. § 147.02 (1967).

12. Minn. Stat. § 146.01, .06-.07, .12 (1967).

13. An alternative method of meeting this requirement is to pass the examination given "by the appropriate board or agency of any state or country which the Board may from time to time determine to be acceptable, as provided in MSA, § 147.03, provided, however, that the Board may require the applicant to be examined in such subjects which, in the

opinion of the Board, have not been satisfactorily covered, and may require the applicant to pass an oral examination." Minn. Reg. ME 5(a) (1966). This method is known as license by endorsement.

14. Minn. Stat. § 147.01 (1967). "From the list of persons so recommended the governor may appoint one member to the board for the above prescribed term of eight years." [Emphasis added.] It appears that the governor is not completely bound to appoint one of the persons.

15. Minn. Stat. § 147.03 (1967). Minn. Reg. ME 4 (1966). This method is known as license by reciprocity.

16. Personal communication with Board of Basic Science Examiners.

17. Minnesota currently has reciprocity with every state except Florida and Hawaii. However, the retaliatory clause in the statute is rarely used anyway because of the shortage of doctors in the state. Personal communication with Office of the Board of Medical Examiners.

18. Minn. Stat. § 147.04 (1967).

19. Minn. Stat. § 147.09 (1967).

20. Minn. Stat. § 147.16 (1967).

21. Minn. Stat. § 147.16 (1967). Minn. Reg. ME 6(b) (1966).

22. Minn. Stat. § 147.17 (1967). Minn. Reg. ME 6(c), (d) (1966).

23. Minn. Stat. § 147.18 (1967).

24. Minn. Reg. ME 7(a), (b) (1966).

25. Minn. Stat. § 147.23 (1967).

26. Granger v. Craven, 159 Minn. 296 (1924); Andrews v. Cosgriff, 175 Minn. 431 (1928); Shaleen v. Stratte, 188 Minn. 219 (1933).

27. Minn. Laws, 1969, Ch. 928 (to be codified as §§ 147.24-.29 of Minn. Stat.).

28. The board has not revoked a physician's license within the last four years. Personal communication with the Board of Medical Examiners.

29. Minn. Stat. § 147.02(3) (1967).

30. Minn. Stat. § 147.10 (1967).

31. State v. Bohl, 144 Minn. 437 (1920).

32. Stewart v. Roah, 55 Minn. 20 (1893).

33. Granger v. Adson, 190 Minn. 23 (1933).

34. Arizona, Colorado, Kansas, and Oklahoma.

35. Minn. Laws, 1969, Ch. 974, Sec. 10 (to be codified as § 150A.10, Minn. Stat.).

36. Swanson v. Chatterton, 160 N.W.2d 662 (1968).

37. Manion v. Tweedy, 257 Minn. 59 (1960).

38. Minn. Stat. §§ 146.01, .06-.07, .12, 147.02 (1967). Minn. Reg. ME 2 (1966).

39. Minn. Stat. § 147.01 (1967).

40. Minn. Stat. § 147.03 (1967). Minn. Reg. ME 4 (1966).

41. Minn. Stat. § 147.03 (1967). Minn. Reg. ME 5 (1966).

42. Minn. Stat. § 147.031 (1967). Minn. Reg. ME 8 (1966).

43. Minn. Stat. § 147.02(3) (1967).

44. Minn. Stat. § 147.031(2) (1967).

45. Minn. Stat. § 150A .11-.12 (Supp. 1970).

46. Minn. Stat. § 150A .06(1) (Supp. 1970).

47. Minn. Stat. § 150A .02 (Supp. 1970).

48. Minn. Stat. § 150A .05(2) (Supp. 1970)

49. Minn. Stat. § 150A .06(4) (Supp. 1970).

50. Minn. Stat. § 150A .06(3) (Supp. 1970).

51. Minn. Stat. § 150A .06(3), (4) (Supp. 1970).

52. Minn. Stat. § 150A .08 (Supp. 1970).

53. Minn. Stat. § 150A .10(1) (Supp. 1970).

54. Minn. Stat. § 150A .10(1) (Supp. 1970).

55. Minn. Stat. § 150A .10(1) (Supp. 1970).

56. This statement assumes that the dentist is the employer of the hygienist -- i.e., that there in professional corporations involved and that the hygienist is not an independent contractor. W. L. Prosser, The Law of Torts, 3rd ed., pp. 470-74 (1964).

57. Minn. Stat. § 150A .10(1) (Supp. 1970)

58. Minn. Stat. § 150A 10(2) (Supp. 1970).

59. Minn. Stat. § 150A .10(2) (Supp. 1970)

60. Liability is imposed by use of the doctrine of respondent superior; Prosser, Torts, 3rd ed., pp. 470-74 (1964).

61. Minn. Stat. § 150A .10(2) (Supp. 1970).

62. See footnotes 45 and 49.

63. Minn. Stat. § 150A .10(2) (Supp. 1970).

64. Minn. Stat. § 150A .10(3) (Supp. 1970).

65. Minn. Stat. § 150A .10(3) (Supp. 1970).

66. Minn. Stat. § 150A .09(2) (Supp. 1970).

67. Minn. Stat. § 150A .05, .11(1), .12 (Supp. 1970).

68. Minn. Stat. § 150A .06(2) (Supp. 1970).

69. Minn. Stat. § 150A .04 (Supp. 1970).

70. Minn. Stat. § 150A .06(3), (4) (Supp. 1970).

71. Minn. Stat. § 150A .08 (Supp. 1970).

72. Minn. Stat. § 150A .05, .10, .11, .12 (Supp. 1970).

73. Minn. Stat. § 150A .10 (Supp. 1970).

74. Minn. Stat. § 150A .09(2) (Supp. 1970).

75. Minn. Stat. § 151.01(3), .15-.18, .29 (1967).

76. Minn. Stat. § 151.10 (1967).

77. Minn. Stat. § 151.02-.06 (1967).

78. Minn. Stat. § 151.02-.05 (1967).

79. Minn. Stat. § 151.12 (1967).

80. Minn. Stat. § 151.06 (1967).

81. Minn. Stat. § 151.01(4), .11 (1967).

82. Minn. Laws, 1969, Ch. 933, Sec. 9 (to be codified on 151.101, Minn. Stat.); Minn. Stat. § 151.01(15) (1967).

83. Minn. Stat. § 151.15, .16 (1967).

84. Minn. Stat. § 151.13 (1967).

85. Minn. Stat. § 148.81 (1967).

86. Minn. Stat. § 148.81(2) (1967).

87. Minn. Stat. § 148.82 (1967).

88. Minn. Stat. § 148.79 (1967).

89. Minn. Stat. § 148.83 (1967).

90. Minn. Stat. § 148.81(1) (1967).

91. Minn. Stat. § 148.86 (1967).

92. Minn. Stat. § 148.76 (1967).

93. Minn. Stat. § 148.70 (1967).

94. Minn. Stat. §§ 148.66-.67 (1967).

95. Minn. Stat. § 148.72(1) (1967).

96. Minn. Stat. § 148.75 (1967).

97. Minn. Stat. § 148.75 (1967).

98. Minn. Stat. § 148.77 (1967).

99. Minn. Stat. § 148.76 (1967).

100. Minn. Stat. § 148.76 (1967).

101. Minn. Stat. §§ 148.65, 148.77(3) (1967).

102. Minn. Stat. § 148.77(2) (1967).

103. Minn. Stat. §§ 148.71, .283 (1967).

104. Minn. Stat. § 148.211 (1967).

105. Minn. Stat. § 148.181 (1967).

106. Minn. Stat. § 148.191 (1967).

107. Minn. Stat. § 148.282 (1967).

108. Minn. Stat. § 148.286 (1967).

109. Minn. Stat. § 148.171 (1967).

110. Minn. Stat. § 148.211 (1967).

111. Minn. Stat. § 148.271(2) (1967).

112. Minn. Stat. § 148.281 (1967).

113. Minn. Stat. § 148.271(4) (1967).

114. Minn. Stat. § 148.271(6) (1967).

115. Minn. Stat. § 148.271(9) (1967).

116. Minn. Stat. § 148.271(7), (10) (1967).

117. Minn. Stat. §§ 148.29, .293 (1967).

118. Minn. Stat. § 148.291 (1967).

119. Minn. Stat. §§ 148.29, .292 (1967).

120. Minn. Stat. § 148.286 (1967).

121. Minn. Stat. § 148.291 (1967).

122. Minn. Stat. § 148.297 (1967).

123. Minn. Stat. § 148.293 (1967).

124. Minn. Stat. § 148.293 (1967).

125. Minn. Stat. §§ 153.04-.05, .15 (1967).

126. Minn. Stat. § 153.08 (1967)

127. Minn. Stat. § 148.56 (1967).

128. Minn. Stat. § 148.57 (1967).

129. Minn. Stat. § 148.57(2) (1967).

130. Minn. Stat. § 148.57(3) (1967).

131. Minn. Stat. § 148.30-.31 (1967).

132. Minn. Stat. § 148.32 (1967).

133. Prosser, The Law of Torts, pp. 142-43, 146-48.

134. Prosser, pp. 142-205.

135. Prosser, pp. 470-72.

136. Prosser, pp. 470-80.

137. A. Leff, "Medical Devices and Paramedical Personnel: A Preliminary Context for Emerging Problems," Washington University Law Quarterly (1967), p. 368.

138. Leff, pp. 362, 368.

139. Leff, pp. 368-69.

140. Prosser, pp. 470-72.

141. Leff, p. 370.

142. Prosser, pp. 472-76.

143. Leff, pp. 374-78.

144. Leff, pp. 339-44.

145. Leff, pp. 378-90, esp. 385-86.

146. Leff, pp. 387-90.

147. Leff, pp. 332-396.

148. Statement by D. Robert Howard, M.D., at Conference on Current Status and Development of Physician's Assistant Program, Durham, N.C., October 28, 1968.

149. AMA News (December 1, 1969), p. 9.

150. Henry K. Silver, Loretta C. Ford, and Lewis R. Day, "The Pediatric Nurse-Practitioner Program," JAMA (April 22, 1968), p. 301.

151. Israel Light, "Development and Growth of New Allied Health Fields," JAMA (October 6, 1969).

152. Robert D. Coze and Marc F. Hansen, "The Doctor's Assistant," JAMA (July 28, 1969).

153. E. Harvey Estes, Jr., "Advantages and Limitations of Medical Assistants," Journal of the American Geriatrics Society (October, 1968).

154. Joan Goldstein, "Medical Corpsmen as a Source of Civilian Health Manpower for New Jersey" (Trenton, N.J.: State Department of Health, n.d.).

155. Edward Forgotson, Ruth Roemer, and Roger Newman, "Licensure of Physicians," Washington University Law Quarterly (Summer 1967), p. 249.

156. Leff, p. 390.

157. Nathan Hersey, "An Alternative to Mandatory Licensed Health Professionals," Hospital Progress (March 1969), p. 73.

158. Subcommittee on Executive Reorganization, Medical Malpractice: The Patient Versus the Physician (Washington, D.C.: GPO, November 20, 1969).

159. Ibid.

APPENDIX A: EDUCATIONAL REQUIREMENTS AND ACCREDITATION AND CERTIFYING ORGANIZATIONS FOR SPECIFIC HEALTH FIELDS IN MINNESOTA

	Accredited Schools in Minnesota	Length of Schooling (after high school) and Degree of Certification	Accrediting Organizations	Certifying or Licensing Boards
Pharmacy	University of Minnesota	About 5 years (R.Ph.)	Minn. Bd. of Pharmacy (accredits schools approved by American Council of Pharmaceutical Education)	Minn. Bd. of Pharmacy
Physical Therapy	University of Minnesota and Mayo Clinic	4 years for a B.S. in P.T. or a 12 - 16-month post-baccalaureate course (R.P.T.)	Minn. Bd. of Medical Examiners	Minn. Bd. of Medical Examiners
Physician	University of Minnesota	At least 4 years, often 10 - 15 years, after undergraduate work (M.D.)	Minn. Bd. of Medical Examiners, American Medical Association, and Association of American Medical Colleges	Minn. Bd. of Medical Examiners
Practical Nurse	26 schools	About 12 months (L.P.N.)	Minn. Bd. of Nursing	Minn. Bd. of Nursing
Professional Nurse	25 schools	2 years for associate degree; 3 years for diploma; 4 years for B.S. (R.N.)	Minn. Bd. of Nursing and National League of Nursing	Minn. Bd. of Nursing

ADDENDUM

APPENDIX A: EDUCATIONAL REQUIREMENTS AND ACCREDITATION AND CERTIFYING ORGANIZATIONS FOR SPECIFIC HEALTH FIELDS IN MINNESOTA

	Accredited Schools in Minnesota	Length of Schooling (after high school) and Degree of Certification	Accrediting Organizations	Certifying or Licensing Boards
Optometry	None in Minnesota. 11 nationally accredited	60 hours undergradute. 4 years for O.D. degree	Council on Optometric Education	Minnesota State Board of Optometry

	Accredited Schools in Minnesota	Length of Schooling (after high school) and Degree of Certification	Accrediting Organizations	Certifying or Licensing Boards
Radiologic Technologist	38 schools	B.S. offered at some schools -- usually 24-month program after high school for certificate (R.T.)	American Medical Association Council of Medical Education assisted by Joint Review Committee on Radiological Technology of American Society of Radiologic Technicians	American Registry of Radiologic Technologists
Dental Hygiene	University of Minnesota	2 years for graduate in dental hygiene (G.D.H.); 4 years for B.S. and registered dental hygienist (R.D.H.)	Minn. Bd. of Dentistry, assisted by Council on Dental Education of the American Dental Association with American Dental Hygiene Association	Minn. Bd. of Dentistry
Dentistry	University of Minnesota	At least 60 semester hours undergraduate; 4 additional years for D.D.S.	Minn. Bd. of Dentistry, with Council on Dental Education of the American Dental Association	Minn. Bd. of Dentistry
Medical Technology	13 colleges and universities	4 years for B.S. in medical technology; 2 years for those with bachelor's degree	Council on Medical Education of the American Medical Association with the Bd. of Schools of Medical Technology of the American Society of Clinical Pathologists	Bd. of Registry of Medical Technology of the American Society of Clinical Pathologists

	Accredited Schools in Minnesota	Length of Schooling (after high school) and Degree of Certification	Accrediting Organizations	Certifying or Licensing Boards
Nurse Aide	On-the-job training at hospitals, clinics, etc.	None. On-the-job training.	None	None
Occupational Therapist	University of Minnesota and College of St. Catherine	4 years for a B.S. in O.T. plus 9 months clinical training or 18 months after bachelors in other field -- O.T.R. after examination	Council on Medical Education of the American Medical Association with American Occupational Therapy Association	American Occupational Therapy Association
Osteopath	None	Bachelor's degree plus 4 years professional school and usually 1 year internship plus additional training for specialties (D.O.)	Minn. Bd. of Medical Examiners with American Osteopathic Association Bd. of Trustees and Bureau of Professional Education	Minn. Bd. of Medical Examiners

APPENDIX B: RECOMMENDATIONS AND CONCLUSIONS OF THE COMMITTEE ON ALLIED HEALTH PERSONNEL

Conclusions

1. A belief that the military makes more effective use of supporting health personnel than does civilian medicine in the delivery of medical care is probably well founded.

2. The following characteristics of the military medical system -- an authoritarian, centrally-managed system -- are pertinent: (1) it can assign, from enlisted personnel, those to be trained in selected skills; (2) it can develop its own training programs and standards of skills to suit its own needs; (3) it can assign the personnel it trains for service when and where it needs them; and (4) it can provide incentives and rewards in terms of advancement in rate on the basis of the quality of leadership shown by the enlisted man, and not merely on the range of service he has been trained and assigned to give.

3. Civilian medical care cannot be described as "a system," but is rather a series of interlacing systems independently managed and unified only by the fact that its practices are molded by the customs and traditions of the profession of medicine. It is basically a free-enterprise system, and it must recruit supporting health personnel, in competition with other industries. It does not have the power to assign trained recruits to areas or skills in which they may be most needed. The training, certification, and licensing of supporting personnel are determined by a confusing array of professional, craft, and governmental regulations and restrictions that tend to make dead-end streets of many areas of supporting medical service and limit the opportunity for advancement in skills, leadership, and economic rewards. This reduces the attractiveness of these types of service to alert and ambitious young people.

4. The military has benefited for years from the use of civilian consultants to assist in the development and conduct of its health related programs. The civilian medical community should likewise benefit by the use of consultants from the armed forces, especially in areas related to the education, training, and use of allied health personnel.

5. In each recent year, at least 30,000 corpsmen with various degrees of health related training and experience have left the military services. Many thousands of these men carry with them a store of health related knowledge and skill, much of which will be lost to society unless strong and timely efforts are made to recruit and retain them in appropriate civilian employment.

6. There is a great need in both military and nonmilitary circles for new approaches to the delivery of health care. Important aspects of such an approach are the identification of new types of skills required by modern medicine and adequate action to incorporate newly identified types of personnel -- for instance, physician assistants, autopsy assistants, pediatric nurse practitioners, nurse clinical specialists, and medical technicians -- into education, training, and health care programs. As their worth is demonstrated, they should become a recognized part of the health care support spectrum.

7. A detailed review of military health care personnel practices will be of value only insofar as it is accompanied by a comparative review of civilian medical personnel practices and by a willingness by both groups to accept changes that will improve their delivery of total health care.

Recommendations

1. The Committee strongly recommends that those in positions of leadership in civilian medicine re-examine the ranges of services rendered by the many categories of health care personnel, and restructure these services in ways that increase the effectiveness of the delivery of health care by both professional and supporting personnel.

2. The Committee recommends that leaders in civilian medicine counsel with leaders in military medicine to learn from the military experience better ways of training and using supporting personnel in civilian health care systems -- hospitals, clinics, and private practice.

3. The Committee recommends that experiments be conducted in the training of new categories of supporting health personnel and their integration into health care teams, and in desirable changes in the skills of presently recognized personnel categories to meet changing requirements. The Veterans' Administration is suggested as a logical system in which such experiments might be tried.

4. The Committee recommends that career patterns for supporting health care personnel be so structured that a person can rise from one classification to another in his present specialty or enter a related field while receiving adequate credit for prior training, experience, and education.

5. The Committee recommends that adequate attention be given to methods of recruiting and retaining ex-corpsmen in the civilian health care system; to pilot programs for developing adequate methods of evaluating the ex-corpsmen's existing skills, and programs for increasing those skills to meet specific technical and other job requirements; and to seeking the necessary changes in accreditation and licensing regulations and laws that at present often prevent the technically qualified person from meeting employment requirements.

6. The Committee recommends that each state establish a permanent committee, which would report to that official agency of the state best qualified to supervise professional qualifications, such as the agency for administering state health planning functions as provided for by the Comprehensive Health Planning and Public Health Services Amendments of 1966 (Public Law 89-749), or, as appropriate, to the State Board of Medical Examiners or some other group. The committee would have members drawn from professional, legal, educational, and hospital administrative groups, to serve as an advisory body to educational institutions that establish pilot educational and training programs in the health care field. This body would consider the adequacy of faculty, facilities, and curricula, and would assist in obtaining modifications in statutes, rules, and regulations so as to facilitate the use of new categories of personnel produced by these training programs.

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